UNSOLVED DIAMOND MYSTERIES TALES FROM METEOR CRATER

arizonahighways.com NOVEMBER 2003

ARIZONA HIGHWAYS

AUTUMN'S VIVID COLORS
in a Hideaway Canyon

The Dangerous Ride to
PEACE WITH COCHISE

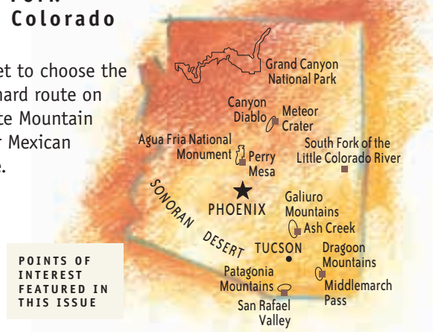
State Borders
the lines that define us

HOOOOO?
Owls of the Desert

ARIZONA HIGHWAYS
NOVEMBER 2003

[THIS PAGE] An isolated juniper stands in relief before a vivid sunset in Hurricane Valley on the Shivwits Plateau in the state's extreme northwestern corner.
[FRONT COVER] The Colorado River courses through the rugged landscape of the Imperial National Wildlife Refuge along Arizona's western border with California. See story, page 6.
[BACK COVER] In the Chiricahua Mountains, fallen maple leaves brighten a moss- and lichen-covered boulder.
ALL BY MICHAEL COLLIER

page 50



POINTS OF INTEREST FEATURED IN THIS ISSUE

letters and e-mail

River Adventure

Peter Aleshire's story, "Colorado River Assault," (June '03) was one of the most touching articles I have read. He not only lets you become part of his adventure, but also part of his family. The love for his sons is so clear and strong.

I have been fighting a heart condition for the last five years, and Peter has stirred my courage to stay strong so I can show my own 2-year-old son this soul-touching place one day.

LISA PASQUALINO, Verona, PA

"Colorado River Assault" brought back wonderful memories. In April 1970, my geologist husband, Earl, and I (along with numerous other geologists) rafted the river from Lee's Ferry to Temple Bar for 10 days. I have traveled many places since then, but that trip was absolutely the high point of all. I loved every minute of it.

MARGUERITE LOVEJOY, El Paso, TX

Here We Go Again

I wanted to call your attention to the centerfold picture in the June 2003 issue. If you look closely at the rock formation in the center of page 29, it appears to be a dog lying down. His eye is defined by some of the growth on the rock, and you can also see his left ear and his well-defined nose.

My husband also noticed the formation. I wonder how many other readers did likewise.

PAT WALLIS, Cave Creek

I am amazed, as I have said before, by the things readers see in our landscape photos. We have the most observant — and the best — readers in the world, and this poor old editor is grateful.

Humor or Not

I was very disappointed in the June 2003 jokes. There was no humor at all.

CAROL H. KENNEDY, Allyn, WA

I enjoy the articles such as "Gene Perret's Wit Stop," "Humor," "Off-ramp," and of course, all the photographic work.

GLADYS NICHOLS, Gilles Plains
South Australia, Australia

As Dorothy Parker once observed, the lives of humor writers are fraught with peril, for no matter what they write, someone can always say, "That ain't funny."

Cowboy Poet and Philosopher

Thank you for the article on our favorite storyteller, Baxter Black (June '03). Anyone who has been exposed to Baxter is captivated, entranced — and addicted. He doesn't just write and recite, he dramatizes. He may be talking with his head between his knees while he personifies a calf being born — from the calf's point of view. Or rocking on his back on the floor as he relates the hilarious tale of a lady neighbor who raises and adores her rabbits.

What a unique, warm individual he is.

GAIL AND DONNA ANDRESS, Nelson, NV

Know Your Bear

The bear pictured on the "Hike of the Month" map (June '03) is a grizzly bear. A black-bear illustration would have better represented the article.

JOHN BARBER, Loveland, CO

You are correct. The last grizzly bear in Arizona was killed in the 1930s.

Failing Eyesight

Arizona Highways and I have grown old together. However, I fear for the relationship as I can no longer see the print. Is it possible to purchase *Arizona Highways* in large print?

JUNE PIETRYKOWSKI, Warren, MI

We do not have a large-print edition, but beginning in January, we are making our body type bolder and increasing the spacing between lines. That will make the magazine easier to read.

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B. Paid circulation		
1. Outside-county, mail subscriptions	303,866	292,770
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4. Other classes mailed through the USPS	0	0
C. Total paid circulation	320,011	320,909
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1. Outside-county	593	944
2. In-county	0	0
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E. Free distribution outside the mail	3,019	930
F. Total free distribution	3,612	1,874
G. Total distribution	323,622	322,783
H. Copies not distributed	23,635	6,800
I. Total	347,257	329,583
J. Percent paid circulation	98.88%	99.42%

I certify that the statements made by me are correct and complete. Win Holden, Publisher

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PRODUCED IN THE USA

PETER NOEBELS

A visitor jumps across rocks in the cool waters of Sabino Creek near Tucson.

taking the off-ramp

Arizona oddities, attractions and pleasures

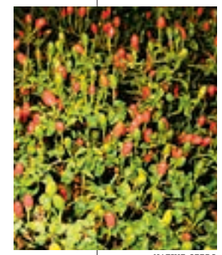
Following the Leader

Bob Porter would have to look over his shoulder to see 80 again, but he has the surefootedness of an experienced trail horse. For 15 years, his well-placed steps have led visitors down, up and over the pathways of Sabino Canyon in the Coronado National Forest.

Among the free guided tours of the canyon, located northeast of Tucson, Porter's Wednesday morning Nature Walks run October through April. For two hours, those following him get a broad view of the canyon, from desert to tree-shaded paths, to single-file climbs along high rock walls. Porter brings with him a diverse wealth of information on the plant life and the wildlife, with some history, botany and Tucson recollections thrown in for good measure.

A former professor of Latin, Porter taught at Princeton and Yale, counting among his students one George W. Bush. Today, those who join him can reach their own lofty heights within the rugged beauty of an Arizona canyon.

Information: (520) 749-8700.

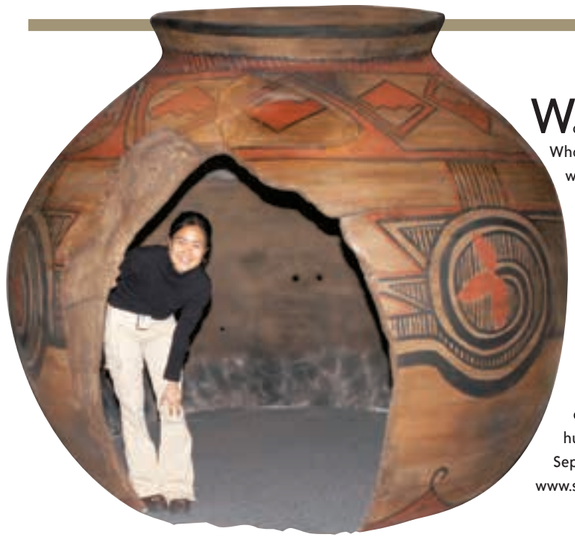


NATIVE SEEDS

It's Chile Season

As the winter months approach, things heat up for chile lovers everywhere, and for those connoisseurs of spicy cuisine, there's no better time of year. In the Southwest especially, the scent of roasting chiles is one of winter's great aromas. For humans only, apparently.

Scientists Joshua Tewksbury, from the University of Washington, and Gary Nabhan, from Northern Arizona University's Center for Sustainable Environments, discovered that chiles rely on birds to germinate and disperse their seeds. Nabhan and Tewksbury's research further showed that birds exclusively consumed wild chiles, while mammals avoided them — a fact that the scientific team concluded was due to the effect of the capsaicin, the substance that gives peppers their heat.



UNIVERSITY OF ARIZONA, ARIZONA STATE MUSEUM

Lotsa Pots

Walk into, around and through an 8-by-10-foot ceramic pot replica as you answer the questions: Who made it? How long ago? How was it made? How was it used? So what? The Pottery Detectives Exhibit at the Arizona State Museum in Tucson helps visitors understand why archaeologists examine the past and why it is important today. Films, activities, booths, experts, hands-on experiences and pottery makers all help shed light on the mysteries of early Indian pottery. Archaeologists can sometimes tell what was cooked in the pot, if the piece had been traded, the world views of the group, where the sand used to make the pot came from and even if they had farms or were hunter-gatherers. The exhibit runs through September 2004. Information: (520) 621-6302 or www.statemuseum.arizona.edu.

THIS MONTH IN ARIZONA

1873 The **land patent for the city of Phoenix** is filed at the Florence Land Office. Cost of the 320-acre townsite is **$550**.

1878 The **first brick building** in Phoenix nears completion.

1885 In Arizona, there are 87 **public school buildings**, 150 schools and **an attendance of 3,226**. The number of **children not attending school exceeds 4,000**.

1887 Phoenix kicks off its **first horse-drawn streetcar** line along a 2-mile stretch of Washington Street.

1888 **Phoenix Chamber of Commerce** is organized.

1900 Two brothers are **legally hanged** in Tombstone for the **murder of two peace officers**.

1906 Arizona **votes on joint statehood with New Mexico** and **overwhelmingly overrides** the idea.

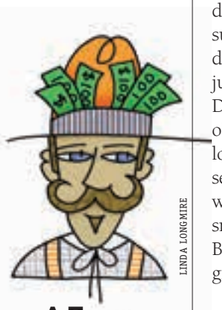
PETER NOEBELS

Snaking Through Town

If you're tooling along a bike path approaching Broadway Boulevard just east of downtown Tucson, and you suddenly hear a warning rattle, don't be alarmed. You may have just tripped a sensor in the "tail" of Diamondback Bridge, the creation of artist Simon Donovan. Part of a long-range project to connect several of Tucson's bike and walking paths, the 280-foot metal snake bridge stretching across Broadway represents the city's growing collection of public art.

The project took five years to complete, but Donovan didn't mind. "It was great that it took that long," he says, mainly because he had time to solve problems unique to the project. What kind of cage material for the enclosure would provide airflow yet reflect its colors when viewed from below? (Answer: Painted industrial floor grating.) How can I make giant stencils to paint the snake's diamondback pattern? (Answer: 10-by-20-foot sheets of koi pond liner.) What material would work for the rattler's ribs? (Answer: Plastic-covered foam padding.)

Since its opening last May, pedestrians and art lovers have been pleased with their new "pet."



LINDA LONGMIRE

A Town They Called Their Own

In 1901, the residents of Chloride worked to raise funds to acquire title to the lands occupied as the townsite. The cost? $600.

Western Music Shindig

On November 6 through 9, 2003, give a big howdy to the Tucson Cowboy Music Roundup, to be presented at the Inn Suites Resort and Hotel at 475 N. Granada Ave.

This year's lineup includes educational programs for schools in the community followed by a barbecue and dance. Open jam sessions will end the evening. On November 6 through 8, live music will waft from three stages during the day, and night concerts will top off the fun. On November 8, the Western fashion show and luncheon will entertain visitors, and the championship chili cook-off will heat things up a bit. November 9 brings a special cowboy church and gospel concert.

Information: (520) 743-9328 or homeranchhands.org.

Tracking Time

A trip to the Arizona Street Railway Museum, home of the historic Phoenix Trolley, is not only a step back in time but also a peek into the future. Lawmakers and voters are considering a rebirth of the Phoenix trolley system, which may bring Central Avenue up to mass-transit speed with some other highly populated U.S. cities such as San Diego, San Jose and Sacramento.

Entering from Culver just off Central Avenue in the Margaret Hance Deck Park, visitors can experience a nostalgic Phoenix Trolley ride or walking tour. The experience reminds visitors that although conditions were hot in the summer, cold during the winter and noisy year-round, the motto of the old Phoenix Street Railway System was "Ride a Mile and Smile the While," providing trolley transportation every 10 minutes for only 5 cents a hitch. The railway system was the main source of transportation in Phoenix from 1887 until 1948.

Call first before making the trip, as the trolley is occasionally out of service for electrical upgrades. When running, trolley rides cost $4.50 for adults, $2.50 for children and $4 for seniors and organized groups.

Information: (602) 254-0307 or www.phoenixtrolley.com.

PHOENIX TROLLEY MUSEUM

MARTY CORDANO

David Eppele surrounds his cactus garden with a Santa Fe-style wall built from recycled materials, left, coated with mortar and painted to look like adobe construction, right.

How *Does* His Garden Grow?

A wall of "garbage" surrounds the Arizona Cactus Botanical Gardens, located 6 miles south of Bisbee in Bisbee Junction. Director David Eppele is proud of that fact, since the wall looks like classic adobe when, in truth, it's constructed of recycled pallets, steel mesh, plywood and a mortar coating.

In a way, the wall serves as a credo for the 2-acre garden. Just as the wall is constructed of things found lying around, all of the more than 800 plant specimens in the gardens make do with what's lying around the area. That is, in a location that receives a scant 16 inches of rain a year, an entire botanical garden thrives without supplemental water, fertilizer or pesticide.

"If they can't do it on 16 inches, they don't make it," says Eppele, who has spent the last 18 years working with his botanical garden at Arizona Cactus and Succulent Research, figuring out what plants will thrive in the inhospitable climate of southeastern Arizona.

Eppele offers free daily tours at the gardens — complete with free plant clippings and samples of prickly pear juice — to help spread the word about drought-resistant landscaping. And the array of 15-foot-tall yuccas, 20-foot-wide prickly pears and various South American columnar cacti proves that even without water, an Arizona garden can shine.

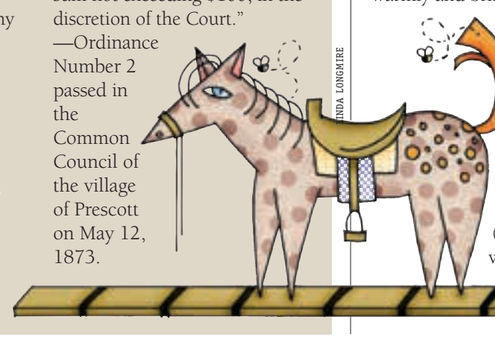
Information: arizonacactus.com.

LIFE IN ARIZONA 1873

No Horses on the Sidewalk

"Any person who shall willfully and maliciously ride or drive any horse, mule or other riding animal, upon any porch, or sidewalk, or under any awning in front of any private dwelling or place of business, or into any dwelling, store, saloon, or other business house, thereby terrifying the occupants thereof, and endangering life and property, or who shall drive or ride through the plazas, streets, lanes, or alleys within the village limits in a careless and reckless manner liable to cause injury to life or property, shall, upon conviction before the Recorder, be fined in any sum not exceeding $100, in the discretion of the Court."

—Ordinance Number 2 passed in the Common Council of the village of Prescott on May 12, 1873.



LINDA LONGMIRE

Christmas at Winsor Castle

Winsor Castle, the official name of the old rock fort at Pipe Spring National Monument, goes all out for Christmas. Victorian lamps softly light the pioneer rooms while women in long flowing dresses move from room to room like ghosts from the past. The Harmonium, an old reed organ, fills the two-story rock enclosure with Christmas carols. Called "Winsor Castle by Night," this magic event happens only one night a year. On an evening early in December, the fort comes alive with period Christmas decorations, stories, tours and refreshments. Stand around a campfire and socialize much like travelers from the past, but be sure to dress warmly and bring a flashlight.

Pipe Spring National Monument is near the Utah border on the Arizona Strip, 14 miles southwest of Fredonia.

Information: (928) 643-7105 or www.nps.gov/pisp.

LINDA LONGMIRE

LINDA LONGMIRE

Question of the Month

Q Are there **earthquakes** in Arizona?

A In 1910, **52 earthquakes rocked and rolled through northern Arizona in just 13 days.** A construction crew working in the forest quickly left their posts after boulders shook loose and rolled into their camp. When the last of the 1910 quakes hit on September 23, its intensity was so powerful, the local Indians decided to evacuate the area.

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Arizona's rambling borders

Historical events shaped the state and gave an outline for its identity

TEXT BY ROSE HOUK

PHOTOGRAPHS BY MICHAEL COLLIER

[LEFT] Shiprock, near the Arizona-New Mexico border, is the throat of an extinct volcano, with stony ribs radiating out onto the surrounding plains.

Arizona shares borders with five states, counting the corner with Colorado, and another country. Therein lies the tale of how the state took shape — it was what remained after everything surrounding it was claimed and charted.

Arizona now rests between the 109th meridian on the east and the lower Colorado River on the west, and between the 31st parallel on the south and the 37th parallel on the north. Roughly, these are the state's technical borders, the black lines on maps approximating a rectangle taller than it is wide. You'd wear out a lot of shoe leather walking those borders — 392 miles north to south and about 330 miles east to west. Then, you'd have to get in a boat to complete the tour.

THE STATE'S most famous boundary is the Four Corners, the perfect right-angle intersection where Arizona joins New Mexico, Colorado and Utah — the only place in America where four states meet. For decades, kids have piled out of the family station wagon, run up to the monument there, then splayed out arms and legs to touch all four states at once. Snapshots documenting the event are mounted in family albums across the land.

Today you pay the guy in the little booth two bucks to enter "Four Corners U.S.A." The U.S. flag and the four state flags snap smartly in the wind. An armada of snow cone and Navajo Indian taco stands encircles the big granite slab that is now the monument. Taking in the 360-degree sweep of scenery, you would be justified in thinking someone conspired to select this spot just for the view. The San Juan River drifts into Utah, Sleeping Ute Mountain gracefully reposes in Colorado, the Carrizo Mountains loom behind in Arizona and the solitary spire of Shiprock floats out in the high desert of New Mexico. Over everything, an infinite sky brims with crazy weather.

Instead, as the bronze plaque tells it, Four Corners was "Established and perpetuated by U.S. Government surveyors and Astronomers beginning in 1868." In that year surveyor Ehud Darling worked east to west along the line between New Mexico Territory and Colorado — 37 degrees north latitude. When he reached the end, he placed a hefty chunk of sandstone to mark the corner.

In 1875 surveyor Chandler Robbins came in from another direction and ended up a mile and a half east of Darling's point. Robbins' monument was accepted as the "true" Four Corners point. The monument grew more elaborate — a large paved block with the state seals in bronze, their names in tile — but over the years it had been cracked and worn smooth by the touch of so many visitors. The U.S. Bureau of Land Management in Colorado decided to replace it, and surveyor Darryl Wilson was given the assignment. The new monument was a 5,000-pound piece of granite, inset with an aluminum bronze disk for the actual corner itself, the state lines radiating from it, and inscribed with the words of Colorado's poet laureate Milford Shields: "Four States Here Meet in Freedom Under God."

On September 1, 1992, the day the new Four Corners Monument was made official, Wilson set out to find Darling's original forgotten monument. "It was just like kids on an Easter egg hunt," Wilson said. He described how he and a few others walked west a mile and half, where they relocated Darling's crumbling piece of sandstone.

The four states will soon upgrade the site, but the monument will stay where it is.

Southern Border

ARIZONA SHARES its southern border with Mexico. That boundary, according to range management scientist Dr. Robert Humphrey, "was not the result of an amicable afternoon spent over a cup of tea or even a few bottles of Mexican beer."

At the end of the war between the United States and Mexico in 1848, the Treaty of Guadalupe Hidalgo was finalized. Arizona was north of the Gila River, home to the Apache, O'odham, Pai, Navajo and Hopi people. Tucson and Tubac were still part of Mexico. A protracted controversy arose over the international boundary, due partly to an inaccurate map and partly to the appointment of John Russell Bartlett as U.S. boundary commissioner. Bartlett was quite the bibliophile but not much of a surveyor. Mired in disagreements and inaction, the survey foundered on political shoals. Funds were cut off and the survey was disbanded.

Relations between the two nations deteriorated, and by 1853 another war became imminent. Enter South Carolina railroad promoter James Gadsden, who as minister to Mexico offered five proposals by which the United States would buy land from

[RIGHT] Hundreds of years ago, Spanish land grants in the San Rafael Valley, east of Nogales, claimed this prime grazing country. These grasses at the base of the Patagonia Mountains still nourish a ranching way of life along Arizona's border with Mexico.

While the controversy over the southern boundary was playing out, Congress was also drawing what would become Arizona's northern boundary.

Mexico. The main goal was to secure enough land to ensure a southern transcontinental rail route to California. Had an agreement been reached on Gadsden's most ambitious proposal, Arizona also would have gained a seaport on the Gulf of California.

After weeks of negotiation, the Gadsden Treaty was finished, but the U.S. Senate refused to ratify it. Instead, the United States modified it, and settled on paying $10 million for nearly 30,000 square miles of land, nearly all of it in what would become Arizona. The southern rail route was secured, but the coveted seaport was lost. Maj. William Emory, an experienced topographical engineer, ably picked up where Bartlett left off, completing the international boundary survey in 1855.

Down beside the border, the towns of Douglas, Palominos and Nogales carry a strong flavor of Mexico. The languid San Pedro River sidles in from the south without regard for fences or checkpoints. In 1540 Francisco Vasquez de Coronado likely followed the San Pedro, then known as the Rio Nexpa, the first documented European expedition to enter the United States. Tall "sky-island" mountains rise grandiosely from the rolling grasslands, golden in winter, green in summer. The border angles obliquely to the northwest across the sere desert lands of the Tohono O'odham. The climate is warm enough here to support organ pipe and senita cacti. The line ends at the Colorado River at Baja California.

Northern Border

WHILE THE controversy over the southern boundary was playing out, Congress was also drawing what would become Arizona's northern boundary. That line — the 37th parallel — was settled only after heated political debate. The decision, called the Compromise of 1850, had little to do with the qualities of the land newly won in the Mexican War. Ostensibly, it had to do more with separating the Mormons in Utah from Hispanics in New Mexico.

But more was at stake. Arizona State University geographer Malcolm Comeaux says that "selection of a northern boundary . . . was of national significance. The problem was one of slavery" and its extension into the Southwest. Northerners, of course, wanted as much slave-free land as possible, while Southerners argued for the opposite.

The Compromise of 1850 admitted California to the Union as a free, rather than a slave, state. Rather arbitrarily, it set the 37th parallel as the southern boundary of Utah and the northern boundary of New Mexico and left the question of slave vs. free to the local populace to determine. When Arizona became a Territory, the 37th parallel ultimately marked its boundary with Utah.

In the two dimensions of a map, the 37th parallel is an arrow-straight east-west line. But the land tells a different story. This boundary crosses through the midst of the chiseled mesas of Monument Valley, bushwhacks tortuous canyons at the base of Utah's Navajo Mountain and swims beneath the sapphire waters of Lake Powell. It claws up and over the swell of the Kaibab monocline, sails across the dusty-gray sagebrush emptiness of the Arizona Strip and splits the town of Colorado City in two. It then bears due west into the starkness of the Mohave Desert and the terra cotta-colored Virgin Mountains.

At Pipe Spring on the Arizona Strip, the boundary line remained in doubt

[ABOVE] A determined piñon pine tree finds purchase in the Kaibab limestone at Crazy Jug Point on the Arizona strip. [RIGHT] A tumbleweed is a passing visitor to Fall Canyon on Navajo Mountain near Arizona's northern border.

An 1881 move to join most of Arizona with southern California to form a new state was scuttled. And Utah's repeated attempts to annex the Arizona Strip were denied, keeping the Grand Canyon forever within Arizona.

for a time. The Deseret Telegraph Co. had a room on the second floor of the Mormon fort there. On December 15, 1871, at 12:31 P.M., Amos Milton Musser tapped out the first message datelined Winsor Castle, Utah. A year later, Pipe Spring was found to be in Arizona, and thus became the state's first telegraph station.

Western Border

THE COMPROMISE of 1850 also set part of California's eastern boundary at the middle of the channel of the lower Colorado River.

Rivers, however, create boundary trouble. Sometimes they mosey along slow and easy, and other times they cut new courses with scalpel-sure quickness. Along the way, they add and subtract land from one bank to the other. The Colorado, says retired BLM surveyor Jim Simpson, was called "The Bull," because when in flood it was just like a raging bull. This wasn't a big problem in areas where the Colorado was confined to canyons, but where the channel was wider, the river "would move a mile a year," Simpson notes. Disputes over real estate — like Lost Island near Yuma — arose between Arizona and California. There, the flooding Colorado broke through a new channel and left behind an orphaned oxbow of good farmland claimed by both states. To tame the raging bull and end the riparian boundary disputes, the U.S. Bureau of Reclamation began channelizing the lower Colorado in the late 1950s.

Drifting downstream in a rowboat, one oar is in California and the other is in Arizona. The state line saunters down the middle of Lake Mead, jumps Hoover Dam, then follows the center of Lake Mohave, bounded on each side by desert mountains. At Bullhead City, river taxis shuttle itchy gamblers from Arizona to the casinos in Laughlin, Nevada. From Lake Havasu City, party barges anchor in the bays on the California side.

Past Parker, the river slips quietly down through the Cibola and Imperial wildlife refuges, where geese, ducks and pelicans congregate on both the eastern and western shores. South of Yuma, the Colorado dwindles down into the sands, drained dry after watering laser-straight rows of lettuce and citrus.

[ABOVE] The Hualapai Mountains look west to the Colorado River as it flows through Topock Gorge. [ABOVE RIGHT] A tunnel of color leads hikers up Toolbox Draw to the top of Escudilla Mountain near Springerville in eastern Arizona.

Eastern Border

ON FEBRUARY 24, 1863, President Abraham Lincoln signed the organic act that created Arizona Territory. The 109th meridian, a straightforward continuation of the Colorado-Utah borderline, was chosen to separate Arizona from New Mexico. There had been moves to divide the two along an east-west line, which would have made two narrow, horizontally shaped territories, one on top of the other. But persuasive mining interests saw more possibilities west of the 109th, and sectional rivalries of the time considered it a more neutral division.

The meridian bisects the Chuska Mountains, where Navajo sheepherders sit in the shade of windmills and weavers craft beautiful rugs at their looms. The line edges the pine-forested Defiance Plateau, bypasses the Navajo capital of Window Rock, crosses Interstate 40 and the muddy Puerco River east of Sanders, ignores the White Mountains' pastoral meadows and boggy lakes, then charges south past the Peloncillo and Chiricahua mountains to the international border.

NO SOONER were Arizona's boundaries fixed than contentions arose. Las Vegas might have been the glitter spot of Arizona had not Congress transferred the triangle of Pah-Ute County to Nevada in 1866. An 1881 move to join most of Arizona with southern California to form a new state was scuttled. And Utah's repeated attempts to annex the Arizona Strip were denied, keeping the Grand Canyon forever within Arizona's borders.

For nearly half a century, Arizona would remain a Territory, too unpeopled and unrefined to be counted worthy of statehood. Finally on Valentine's Day 1912, Arizona was admitted to the union, the last of the lower 48, a state of 72,688,000 acres.

Borders. They define, describe and delineate. They are political, cultural, geographical, historical and possessory. They frame the identity of this place called Arizona.

Rose Houk lives in Flagstaff on the 35th parallel, happily within the boundaries of Arizona. She wrote the recently published Arizona Highways *book* The Mountains Know Arizona: Images of the Land and Stories of Its People, *with photographs by Michael Collier.*

Michael Collier is a photographer, family physician, pilot and geologist. He lives in Flagstaff near Northern Arizona University, where he received one of his geology degrees for a time.

mystery diamonds

from outer space

BITS OF TREASURE SPAWNED MURDER, INTRIGUE AND FRANTIC GREED

BY BOB THOMAS

[ABOVE] A saguaro cactus in the Superstition Mountains seems to point toward a Leonid meteor as it cleaves the night sky.
[ABOVE LEFT] A Geminid meteor streaks past the bright star Procyon above southern Arizona.
BOTH BY FRANK ZULLO

DOLPH CANNON wasn't your usual Arizona prospector. For one thing, he had lots of money, which campfire gossip said he got from selling his finds. He was also a loner who never went on a spree in the saloons and gambling joints when he returned to town. And he never told anyone what he was looking for. In fact, he never talked to anyone unless he absolutely had to.

But then old man Cannon wasn't searching just for gold or silver. He was looking for diamonds — diamonds from the sky — and finding them.

Fifty thousand years ago, a meteor 100 to 150 feet in diameter smacked into the plains of northern Arizona, blowing out a huge crater almost a mile wide and 700 feet deep. Limestone rocks as big as trucks were ejected as far as 2 or 3 miles. Chunks of meteorites and smaller rocks were thrown over a 7-mile radius.

Known today as Meteor Crater, the giant, almost perfectly round cavity 22 miles west of the town of Winslow and 6 miles south of Interstate 40, sits in the center of an immense debris field. It was in this debris field that Cannon found diamonds.

Diamonds are nearly pure carbon, formed deep in the Earth under intense heat and pressure. But interstellar visitors, like meteors that impact the Earth at 30,000 to 40,000 mph, can also create diamonds through heat and pressure. Meteors contain many different minerals — more than 50 kinds have been identified so far — including graphite, a form of carbon.

Scientists believe the graphite was transformed into diamonds by the great heat and pressure generated by the meteor's impact. The collision killed everything in a 2-mile radius, created pressure estimated at 20 million pounds per square inch and generated heat so great that parts of the meteor were vaporized and melted.

About half of the meteor, composed of iron, nickel and stone, was ejected from the crater in the form of large and small fragments. Other fragments that had separated from the main body of the meteor in its plunge through the Earth's atmosphere rained down on the surrounding area.

The very small, almost microscopic diamonds were first discovered inside fragments of meteorite iron. They were determined to be of industrial grade. Since they were embedded in the iron and could only be found by chance — most were struck by the metal saws of artisans engaged in cutting slabs from the fragments for later polishing and sale as curios — the diamonds were generally

believed not worth the effort to extract them.

Ironically, the iron was worth more than the diamonds. In the 1890s, Fred W. Volz ran a trading post and store, near where the Santa Fe Railroad tracks cross Canyon Diablo. Volz hired men and wagons to scour the area around Meteor Crater for iron meteorites. The trading post, whose ruins can still be seen beside the tracks, made almost $13,000 selling the iron to curio buyers.

Unfortunately, in his eagerness to corner the market on the meteorite iron, Volz shipped more than 5 tons of the rusty-looking, dark-red metal to both the East and West coasts and so saturated the market that the prices collapsed, making further iron collecting worthless.

It was during this time that Cannon, undoubtedly hearing about the diamonds in the meteorite fragments, began his solitary prowling of the rolling plains west of Winslow. Like others, Cannon believed that if there were tiny diamonds in the meteorites, there surely could be other, bigger diamonds to be found in the widely scattered impact debris.

Cannon was the object of much curiosity and speculation among Winslow residents and the wandering cowboys and hunters who ran into him. It was generally believed that he was looking for diamonds, because folks watching him from a distance saw him pick up the meteor fragments. He was very particular about which pieces he kept. After a careful examination, he threw most of them back down. Those he kept went into the panniers on his burros, which always followed at his heels, grazing contentedly as he worked haphazardly over the range.

He avoided the heavier iron fragments, instead collecting the stony iron chunks — light-colored rocks laced with impact-melded lines of iron and nickel. Presumably he saw diamonds in the rocks he kept. Pounding them with a heavy hammer could smash these rocks. Parts too saturated with metal to be broken were discarded.

After pulverizing the rocks with his hammer, Cannon sifted through the rock dust and picked out the diamonds by hand. Diamonds, the hardest natural substance known, were not damaged by the pounding.

A number of persons reported seeing Cannon hammering away at his finds. Sometimes the distant observers saw him seize something from the crushed rocks, hold it up between thumb and forefinger against the sun and squint at it. Then he would take a small leather bag from his pocket and slip his find into it. Piles of crushed rock littered Cannon's campsites, indicating that the real work of diamond-finding was done there.

Gladwell Richardson, whose extended family operated various trading posts on the Navajo Indian Reservation for several generations, remembered Cannon coming into the Richardson's wholesale house on the west side of Winslow many times prior to World War I. Richardson, a young schoolboy at the time, described Cannon as a small man about 5 feet 5 inches tall and slightly bent, maybe about 70 years old with a shaggy head of gray hair, a tobacco-stained beard and very pale blue eyes.

Cannon hardly spoke at all during these visits, producing a list of supplies on a piece of brown wrapping paper. Richardson, who later became a prolific Western novelist and author of the acclaimed biography of his family, *Navajo Trader*, would carry the supplies out of the store and help Cannon load them onto the tethered burros. Cannon would reward him with a nickel's worth of red striped candy.

The prospector's supplies were the usual for those days — flour, lard, coffee, chewing tobacco, dried beans, sugar and salt. Sometimes he'd buy 30-30 rifle cartridges because, as nearly everyone did, he got his fresh meat shooting deer and pronghorn antelope.

Cannon always paid in cash, taking bills from a thick wad of currency he carried. Richardson's uncle guessed that Cannon was carrying about $3,000 in cash, and he warned the old man that some outlaw might kill him for his money. Cannon, he said, merely grunted, never answering a word. Richardson claimed the most that Cannon ever said was when he left with his burros: "Wal, gotta hit the grit."

Cannon liked to camp in the many small caves found in Canyon Diablo, a long, deep, sheer-walled chasm that runs south from the Little Colorado River. He changed caves often and made an effort to hide his tracks coming and going. Because no one knew where Cannon was selling his diamonds, word got around that he was hiding them in secret cave caches.

Several people spied on the old man's camps out of curiosity, others out of greed. One man, George McCormick, tried to start up a conversation with Cannon, only to have the prospector pull a six-gun and wordlessly warn him away. McCormick, not to be intimidated, searched and found the cave where Cannon was living. When Cannon left to do more prospecting, McCormick climbed down to the camp and found a small bag of rough diamonds hidden under Cannon's bedroll. No thief, he replaced the gems, which he said were very small with the largest no bigger than a grain of rice.

A short time later, McCormick saw two men tailing Cannon. He recognized both as former convicts who had served prison time for robbery. Feeling protective of Cannon, even though he was markedly unfriendly, McCormick waited until the two camped for the night and then sneaked up close and fired four rifle shots over their beds. The men fled in the dark, leaving all their camp gear. McCormick then sought out Cannon and told him what he had done, warning the old prospector to be careful. Cannon ignored him and never spoke so much as a word.

Richardson said the last time he saw Cannon was in the fall of 1917, when Richardson and another boy were hunting rabbits along the Little Colorado River just east of Winslow. Cannon, on the other side of the river, was silent as always. Richardson left for school in another state, and when he returned in 1921 he asked his uncle if he had seen Cannon. The uncle said no, that Cannon hadn't been in the store for two years or more.

With Cannon's disappearance, the stories of diamond caches grew; a number of treasure seekers searched for his caves in Canyon Diablo. Then, in August 1928, two cowboys who worked for the Pitchfork Ranch came into Winslow with an electrifying tale. While

[ABOVE] This metallic chunk of the 100-foot-wide meteor that slammed into northern Arizona 50,000 years ago was found 7 miles from the original point of impact. COURTESY OF MAMA'S MINERALS
[OPPOSITE PAGE] Meteor Crater, the result of that collision, measures almost 600 feet deep and nearly a mile across. ADRIEL HEISEY

camped near Jacks Canyon about 10 miles south of Winslow, a man who had been shot three times staggered into the light of their campfire. As the unidentified man lay dying, he told the cowboys that he and his partner had found one of Cannon's diamond caches and that his traitor partner then shot him. Wounded, he crawled to his bedroll, grabbed his gun and killed his assailant. After the unidentified man died, the cowboys searched his body and found a buckskin bag half filled with rough diamonds.

The next morning they rode into Winslow and reported the shooting to the sheriff, who left to retrieve the body of the shooting victim. Searchers looked for the corpse of the partner, but failed to find it. Meanwhile the two cowboys took the stones to Black's Jewelry Store in Winslow for appraisal and were told they were flawless diamonds. Not waiting to testify before the coroner's jury, the delighted cowboys hopped a train to Los Angeles and never returned to Winslow. What the diamonds eventually sold for is a mystery.

In 1929 a man loading gravel from the bed of the Little Colorado found scattered human bones, some rotted clothing and a skull with two bullet holes in it. Deputies found an empty wallet nearby containing Cannon's photograph. Cannon, it is believed, was shot after failing to reveal where he had hidden his diamonds. No one was ever arrested for the murder.

In 1958 Richardson took over the operation of the Two Guns Trading Post at Canyon Diablo and U.S. Route 66, which his father had purchased in 1951 from Harry "Indian" Miller. The trading post, under Miller's management, catered to curious tourists and even had a zoo. One day a former employee of Miller happened by and told Richardson that Miller had found one of Cannon's diamond caches and had sold the gems for an unknown amount. According to the employee's story, a Navajo Indian showed Miller a handful of "quartz crystals" he had found in a cave in Canyon Diablo. Miller bought them for 10 cents each, asking the Indian where he had found them.

The next day Miller and the employee went to the site and found two small caves. Miller chose the larger cave to explore, while the employee crawled into the smaller cave, finding nothing. He then entered Miller's cave and saw him hastily pocketing some white stones. Asked what they were, Miller said they were just more quartz crystals. The employee found several white stones the size of a matchhead sticking to a piece of rotted leather that Miller had overlooked. Not believing Miller's story, he stuck them in his pocket and, when he returned to his home in Cincinnati, he took them to a jeweler who identified them as industrial-grade diamonds worth about $10 a piece.

Whether Cannon's diamonds were "flawless" or industrial grade remains unconfirmed. It is almost certain that not all the caches Cannon made during three generations of prospecting have been found. Until more are found and an honest appraisal is made of their quality, the mystery of the "diamonds from space" will remain. AH

Bob Thomas of Phoenix says he is always looking for diamonds in the rough. However, with the prices of meteorites soaring, he'd settle today for a hunk of space iron, with or without diamonds.

Two modern-day horsemen retrace the treaty ride of Lieutenant Sladen and General Howard

MAKING PEACE WITH COCHISE

text by Peter Aleshire photographs by Randy Prentice

Bruce Bilbrey reined in his quarter horse Bubba at the edge of the scrub forest of bloodthirsty catclaw acacia and scanned the rocky hillside. Snip, my surefooted pony, halted just behind, waiting for us to make up our minds.

We were not exactly lost on our pilgrimage to where two courageous soldiers had made peace with the Chiricahua Apache chief Cochise, but "lost" wasn't far from where we sat. Stiff, sore, and thirsty after a daylong ride, we were following clues from the journal of Lt. Joseph Alton Sladen. In 1872, Sladen journeyed with Gen. Otis Howard into the Dragoon Mountains to meet with Cochise. Such a trek had meant almost certain death for most non-Apaches in the decade that Cochise's warriors had all but depopulated southeastern Arizona. Yet Howard and Sladen gambled their lives on this quest for peace.

Over two days, Bilbrey and I were retracing the final 30 miles of the two-month journey of Sladen and Howard, from Fort Apache in central Arizona Territory through New Mexico and back into Arizona through the Chiricahua and Dragoon mountains. Sladen and Howard covered hundreds of miles, often making 30 or 40 miles a day, shadowed by the constant threat of ambush and sudden violent death.

Now, after a single day in the saddle, I could scarcely imagine how they'd managed. We had spent the morning toiling for about 8 miles across the Sulphur Springs Valley, starting near the Sulphur Springs east of the Dragoons, where Howard and Sladen stopped before entering the range, an oak- and pine-studded jumble of boulders rising 3,000 feet from the flat, waterless plain. The Dragoons' peaks had formed a secure fortress from which Cochise's sentinels could see the telltale dust of their enemy's approach from one or two days away. We had then followed the soldiers' trail into the Dragoons through Middlemarch Pass, trying to keep an authentic feel by avoiding the good gravel road now there.

Bilbrey, an accomplished hunter and rider, surveyed the daunting hillside ahead with perfect poise, then kicked Bubba in the ribs. They surged up the hill in an alarming series of lunges. Snip sprang after him, with hooves ringing against rock. Clinging to the saddle horn, I split my focus between not rolling off backward and keeping thorny ocotillo branches from scraping my face. We gained the ridgeline a harrowing few minutes later and surveyed a wild, lonely landscape.

"There," Bilbrey said. "A windmill. Must be water."

I squinted down into the scrub-oak-choked canyon, but could not see the windmill. I recalled that Sladen's journal described how he had stood on a peak as Cochise tried to point out a wagon road on the far side of the valley 40 miles away. Earlier, I had driven that road into Apache Pass and hiked the 1.5-mile trail to the adobe and stone ruins of Fort Bowie, built to guard the precious and strategic spring. Bilbrey turned Bubba toward the purported windmill, and I followed. Sure enough, the windmill marked a stock tank, and we compared a modern map to Sladen's journal.

Sladen's account was edited by Edwin R. Sweeney and published in 1997 by the University of Oklahoma Press as the book *Making Peace with Cochise*. Provoked by an attack on his family by a blundering Army officer, Cochise in 1861 turned his continuous war with the Mexicans to include all Americans as well. In the mid-1860s, after the Army withdrew most of its troops to fight the Civil War, the constant attacks drove out almost

[PREVIOUS PANEL, PAGES 18 AND 19] Viewed from above Bonita Canyon in the Chiricahua Mountains, home of Apache Chief Cochise and his people, the Dos Cabezas range rises on the distant horizon at the edge of Sulphur Springs Valley.
[ABOVE] Late-afternoon light warms a Dragoon Mountains' boulder field in the rugged Council Rock area, where General Howard and Cochise are believed to have held their formal parley for peace.
[ABOVE RIGHT] Author Peter Aleshire and Bruce Bilbrey ride through grassland on the west face of the Dragoon Mountains.
[OPPOSITE PAGE] The vista from Middle March Pass in the Dragoons, looking east toward the Chircahuas, remains unchanged from the days when vigilant Apache sentries kept watch.

[LEFT] In an area known as Cochise Stronghold West, rainwater fills holes made by generations of Apache women grinding corn against granite. [BELOW RIGHT] Sunshine and shadow paint the granite, and mesquite trees shade the grass above Granite Spring in the Dragoons.

anyone trying to live in or cross southeastern Arizona.

Prodded by hundreds of civilian deaths, President Ulysses S. Grant sought to settle the Apaches on reservations. He sent a peace commissioner, who moved many regional Apache bands away from their homelands onto newly created reservations. However, the wary Chiricahua Apaches refused to relocate to a reservation in New Mexico.

President Grant then dispatched Howard, who had lost his arm in the Civil War battle of Fair Oaks and distinguished himself at Bull Run, Antietam and Gettysburg. The fervently religious general, who had the disconcerting habit of falling to his knees in public prayer, threw himself into the task of fashioning peace with the Apaches. Sladen accompanied him, having been Howard's chief aide throughout the Civil War. Holding both a Medal of Honor and a medical degree, Sladen proved an insightful observer.

Three men guided Howard and Sladen. Lanky, red-haired Thomas Jeffords, a frontiersman, trader, mail rider and scout, was Cochise's friend and the only white man who could ride safely into the Dragoon Mountains. The second guide, named Chie, was the son of Cochise's brother. Sladen wrote that Chie was a good-natured, good-looking "stalwart young fellow" who had acquired from the soldiers an extensive vocabulary of profanity that he used cheerfully "without the slightest idea of the meaning." Their third guide was Ponce, a relative by marriage to Cochise, who "had a lazy, devil-may-care, good-natured look, and a longer acquaintance proved that his looks did not belie his character." Their assorted adventures on the arduous journey to the Dragoons included Howard's facing down heavily armed settlers who wanted to execute his two Apache guides.

Once in the Dragoons, Chie went to find Cochise. He returned later with two Apache boys and word that Cochise had been notified of their mission. They then rode along the rugged flank of the mountains to a spring walled by giant rocks where part of Cochise's band was camped. Sladen and Howard spent an uneasy night, comforted by the appearance of several children who spent the night curled up under the blankets by them.

Cochise rode into camp the next morning. "He was a remarkably fine looking man, fully six feet tall, as straight as an arrow, and well proportioned, the typical Indian face, rather long, high cheekbones, clear keen eye, and a Roman nose. His cheeks were slightly painted with vermilion. A yellow silk handkerchief bound his hair, which was straight and black with just a touch of silver," Sladen wrote. "He carried himself at all times with great dignity, and was always treated by those about him with the utmost respect and, at times, fear."

Jeffords, Ponce and Chie praised General Howard to the wary chief, opening the door to negotiations. Howard at first tried to convince Cochise to move to New Mexico, but then conceded to an Arizona reservation that would include their home range. Cochise explained that he could not make the decision alone, but would have to call together the 12 headmen of the scattered Chiricahua bands. Howard agreed to go to Fort Bowie to suspend the military campaign so that the Apaches could safely gather to discuss the treaty. Howard departed with Chie as his guide, leaving Jeffords and Sladen camped with Cochise.

After spending a few weeks with Cochise's people, Sladen found them nothing like his fearful expectations. "The popular idea of the Indian is that he is phlegmatic in temperament, cold and reserved in disposition, lacking vivacity, and entirely without a sense of humor. These Indians were . . . always cheerful, demonstratively happy, and talkative; inquisitive beyond endurance; brim full of fun and joking, and ready to laugh heartily at the most trivial thing. They were especially fond of playing practical jokes of a harmless nature upon each other, and the objects of one of these jokes would laugh as heartily at his own discomfiture as would the bystanders."

Sladen also recorded fascinating encounters with Cochise, recalling one conversation, which was translated through Jeffords, that started with Cochise's trying to cheer him out of his apprehensive loneliness.

"What would you do," asked the chief, "if soldiers came to us now to fight us?"

"I would go out to meet them and tell them that we had made peace with you and they would listen to me and would not fight."

"But perhaps they would not listen to you. Would you fight them, or would you join them and fight us?"

"But they would not fight," Sladen responded, "when I told them my message."

"But," Cochise persisted, "if they would not hear you, would you fight against them?"

"No. I would not fight against my own people, but I'm sure they would not dare to fight after I had given them General Howard's orders."

Cochise laughed quietly to himself, and then said. "What would you do if some Mexican soldiers came to fight us?"

"I would go and meet them and tell them that I was an officer in the United States Army, and that the Indians and our people were making peace, and that they must go back to Mexico."

"But if they would not listen to you, and would fight us, would you fight against us?"

"No," Sladen replied. "In that case I would fight with you against them for they are not my people."

Cochise smiled, appreciating Sladen's logic and honesty.

In the end, Cochise and Howard made peace. Howard established a reservation for the Chiricahua Apaches that included the Dragoon and Chiricahua mountains and appointed Jeffords as the agent. Cochise kept the peace, but after his death in 1874, the government tried to move the Chiricahua bands to the San Carlos reservation. This triggered renewed warfare and cost hundreds of lives.

Bilbrey and I camped for the night at the mouth of a canyon where Howard and Sladen had waited for Chie. At sunset, I climbed stiffly to the top of a spectacular outcropping. As the rocks turned pink, red and yellow in the last light, a dark, shambling shape moved through the oak trees below — probably an acorn-loving black bear. The Apaches revered these animals and believed that they sometimes held the spirits of vanished warriors. I imagined, for a moment, that this passing bear might somehow still carry the lingering spirit of a Chiricahua sentinel with no one left to warn.

We got up early the next day for the ride's final stretch along the front slope of the Dragoons. Hollis Cook, park manager for the Tombstone Courthouse State Historic Park, came to guide us to Council Rock, where most historians believe the conference took place.

We crossed a broad meadow, walked through a grove of oaks and scrambled up a daunting pile of rocks. We came at last to a small space in front of a huge, sloping boulder that formed the airy entrance to a cave. On the underside of the house-sized boulder, hands long ago had painted a series of stick figures in red ocher, including one multiarmed human figure that suggested a cornstalk. A farming people occupied these canyons for thousands of years before the Apaches arrived.

We dismounted, and I climbed to the top of a boulder for a sweeping view of the valley. Someone was driving along a dirt road, raising a cloud of dust that once would have sent the sentinels racing back to Cochise with their warning. But now I merely watched the smudge of dust, touched by an aching sense of loss, like a sentinel left behind. AH

Peter Aleshire of Phoenix has written four books of history about the Indian Wars and insists that there are more ghosts — and history — in Apache Pass than any other single place in Arizona.

Randy Prentice of Tucson wonders what the Apaches thought about the ancient grinding holes and pictographs in the Dragoon Mountains that were created hundreds of years earlier by a civilization much older than their own.

Galiuro Mountains' Trees Flaunt Their Grandeur

A PORTFOLIO BY TOM DANIELSEN

THE COLOR OF

autumn

A PORTFOLIO BY TOM DANIELSEN

autumn

ASH CREEK FORMS A CANYON on the eastern face of the Galiuro Mountains northwest of Willcox, spawning significant stands of maple trees in a mostly sere land.

As one traverses to the upper reaches of the streambed, a spectacular tree-filled sight awaits at Upper Ash Spring.

Black-bear droppings laden with partially digested manzanita berries abundantly dotted the trail I followed when hunting autumn-tinged trees to photograph. Colorful maple leaves wedged incongruously among the fleshy leaves of the Parry's agaves led the way. Each twist in the canyon revealed a spectrum of trees wearing hues of yellow to crimson.

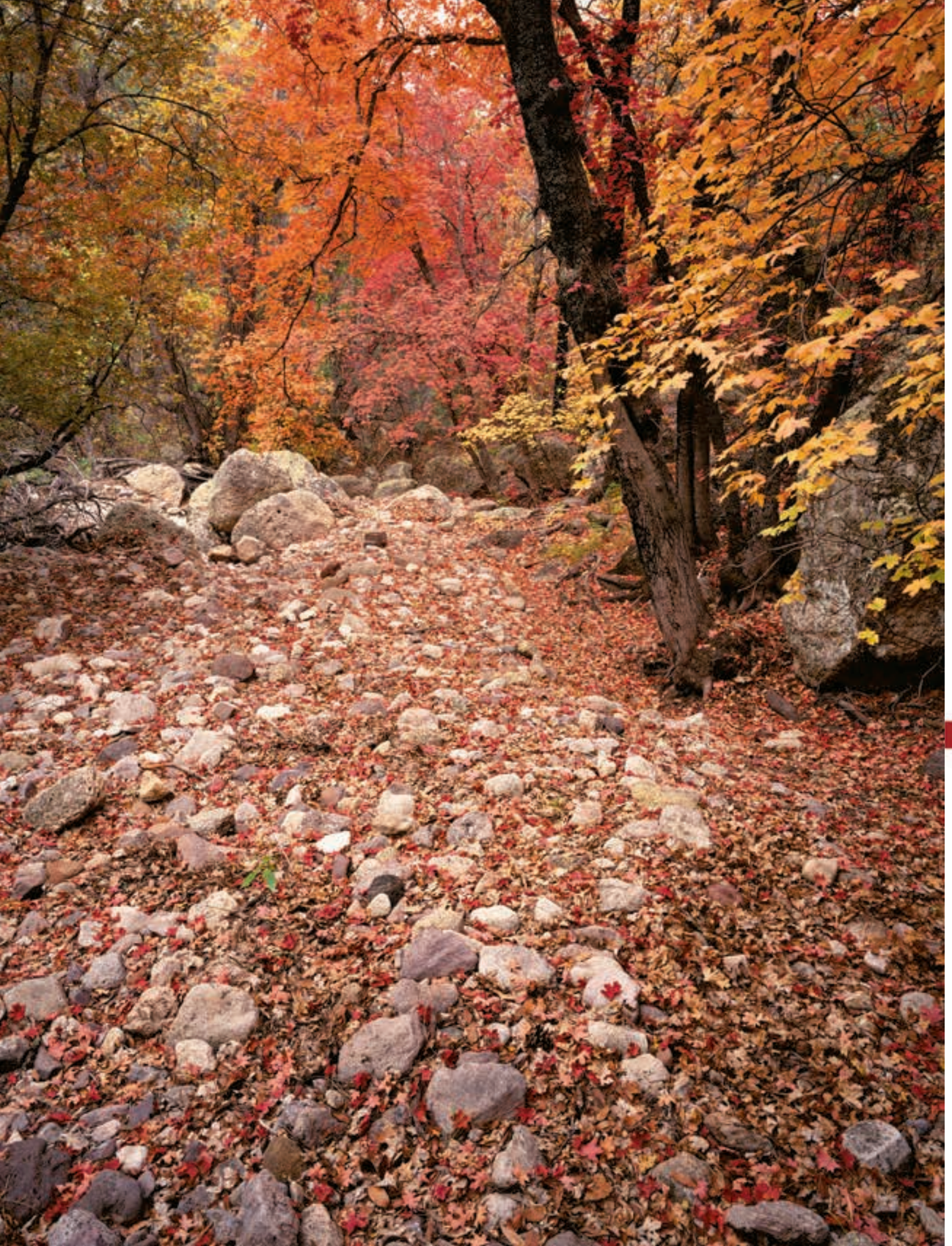
I found a variety of leaf patterns covering the ground beneath some of the maples. Muted colors comprised a few, while others formed a brilliant red forest floor that cast a tint on everything nearby.

The last of the accessible maple trees to photograph grow here in the canyon, and some of the tallest aspens I've ever seen emerge from the maple grove. The contrast is striking between the canopies of the towering golden aspens with the carmine red of the maples below. The memories of that scene will stay with me for a long time.

[PRECEDING PANEL, PAGES 24 AND 25] Bigtooth maple trees in Ash Creek Canyon lay down a red carpet, giving autumn a royal welcome to the Galiuro Mountains in southeastern Arizona. [ABOVE] Dry most of the year, Ash Creek's rocky bottom provides moisture for a stand of bigtooth maple trees bright with fall color. [RIGHT] Bedecked with bigtooth maple leaves, a Parry's agave holds center stage before a multicolored curtain of foliage.

A PORTFOLIO BY TOM DANIELSEN

[PREVIOUS PANEL, PAGES 28 AND 29] A bigtooth maple tree stretches a long limb over Ash Creek's leaf-covered streambed. [RIGHT] This tree will soon drop its brilliant scarlet cloak and stand bare in Ash Creek through the winter.



A PORTFOLIO BY TOM DANIELSEN

[LEFT] A mottled assortment of leaves and rocks blanket Ash Creek, while streamside trees display a range of yellows and reds from saffron to burgundy. [ABOVE] Rocky outcroppings above a crescent of aspen and bigtooth maple trees bespeak the Galiuro Mountains' volcanic origin.

autumn

Sonoran Desert Owls Rule the Night

In distinctive languages, they teach about natural diversity

TEXT BY RICH GLINSKI PHOTOGRAPHS BY TOM VEZO

As the chill of a November sunset settles on the Sonoran Desert, the sentinels of the night emerge from daytime hideaways, and with silent flight swoop to saguaros and limbs of paloverde trees. Owls come in a variety of sizes, some but a single handful of fluffy feathers, others with wings spanning 4 feet. Their sound, not their form, reveals their presence.

More than any other birds, owls' voices demand immediate and total attention. Noises in the dark have that effect. Without visual clues, sound matters, which might explain why so much mythology swirls around these creatures and why owls, with a language all their own, remain distinct from all other birds.

Like most birds, each owl species has many calls used in different circumstances. Those calls most familiar to humans are ones that signal territory or aggressive intent to chase away an adversary. The call of each owl species has a singular tone, cadence

[PREVIOUS PANEL, PAGES 34 AND 35] One of seven species of owls that have nesting territories in the Sonoran Desert, the Western screech owl can often be approached as close as 15 feet by careful observers.
[ABOVE] Feathered tufts that sprout near the center of the head are the most conspicuous features of the long-eared owl, although the tufts are not actually ears.
[LEFT] The elf owl, which stands only 5.5 inches tall, nests in the cavities of trees along creeks or in the holes excavated in saguaros by Gila woodpeckers.
[BELOW] The ghostly white face and salt-and-pepper mottled plumage of the barn owl make it easy to identify in flight at night.
[OPPOSITE PAGE] The great horned owl does not build its own nest; it uses a stick nest vacated by hawks or ravens.

and intensity, and, as in all birds, the owl has its own unique vocabulary. When blended with other owls' calls, it comprises a language that permeates the desert night. In springtime the calls mix with the clamor of crickets and insects, but in winter the owls' songs are chilling and alone.

Through December and January, the great horned owl, Arizona's largest species, starts broadcasting its familiar *ho-ho hooo hoo* call into the southern Arizona darkness. With these mournful notes, the bird lays claim to a prospective nesting territory. In the months to follow, other owl species will join in the chorus of declarations.

The Western screech owl has the most distinctive utterance, sounding much like a bouncing ball. A golf ball that's dropped into a wooden barrel from a height of 2 feet makes a similar sound. The initial "hit of the ball" sounds the loudest, and repetitive "bounces" are more frequent and subdued, trailing off into silence. Hardly the "screech" that this owl's name suggests.

Screeching, however, does identify the barn owl. A throaty, raspy, scratchy shriek emitted over urban or agricultural areas in the Sonoran Desert probably comes from a barn owl.

In similar places, especially around agricultural areas, a sound akin to a rattlesnake's rattle may indicate a burrowing owl. This is not a territorial signal, but rather a very effective defense used by young owls to ward off anything that sticks its nose down their burrow.

The ferruginous pygmy-owl gives a single-note call that is repeated monotonously for several minutes. The song of the male elf owl consists of a series of puppylike yips. Finally, the long-eared owl offers the most eerie resonance, a low-pitched *hooo* series that frequently leaves humans who hear the sound asking the same "question."

Thirteen species of owls find homes in Arizona's varied habitats, and though some may seasonally occur in the Sonoran Desert, only seven species establish nesting territories there. The great horned owl and long-eared owl have the most widespread distributions, occurring from the deserts up to the coniferous forests. The barn owl, Western screech owl and elf owl live in desert areas all year, but also range into woodland and forest habitats of the state, and the burrowing owl lives in burrows in agricultural areas and grasslands. Within Arizona, the endangered ferruginous pygmy-owl occurs only in the Sonoran Desert, where it remains year-round.

In general, owls are not shy around humans, and they often take up residency in areas of human habitation if food is available. In southern Arizona cities, the barn owl sometimes nests in palm trees, preying on small mammals that occupy suburban open space and on nestling pigeons that also commonly inhabit palm trees. An individual long-eared owl takes up recurring residency in an ornamental pine tree at Tucson's Tohono Chul Park from about October through February, the most regular winter occurrence of that species in the Tucson vicinity.

The burrowing owl also has close association with human endeavors, making it readily visible. This long-legged hunter frequently resides around

the fringe of agricultural areas and other open country, where insects, small rodents and lizards are plentiful. One burrowing owl near Yuma had the habit of perching near a convenience store parking lot at night and grabbing insects that fell to the ground beneath a streetlight.

The diets of different owl species have much in common. Owls dine on insects, rodents, mammals and sometimes even other birds, all of which are abundant in the Sonoran Desert. Owl species avoid competition with each other by establishing territory within a habitat and hunting different-sized prey.

The tiny elf owl, the smallest owl of North America at 5.5 inches in length, leaves the Sonoran Desert during winter when much of its food source, anthropods like scorpions and centipedes, lies dormant and protected in the ground or under rocks. This insect specialist retreats to warmer climes of Mexico, where its prey still meanders about after sunset.

The great horned owl captures larger prey such as skunks, ringtailed cats and cottontail rabbits. The barn owl and long-eared owl are specialists on medium-sized rodents like kangaroo rats, and the Western screech owl and burrowing owl grab smaller mice and insects. The ferruginous pygmy-owl has ferocious predatory skills. Slightly larger than the elf owl, it will grab nearly all forms of prey, including insects, small mammals and birds that are even larger than itself, but half of its diet may consist of lizards.

The pygmy-owl becomes active during the day, especially adults with young to feed. Since they are excellent predators, other local birds neighboring their territory will ceaselessly chase pygmy-owls that leave their secretive perches to pursue quarry.

Owls are especially equipped to hunt at night by their superb sense of hearing. A ring, or disk, of feathers on their faces directs sound waves toward the ears. This facial disk is especially evident in the barn owl; the developing feathers of young barn owls reveal this facial pattern very early. The ears, one angled upward and the other downward, enable the owl to locate prey even on moonless nights. Since owls frequently swallow prey whole and digest bone and fur incompletely, they cast up undigested material like the scales, feathers and skulls of their prey in a mass called a pellet. Beneath its favorite daytime roosting perch, an owl will regurgitate these pellets, each one being a detailed assessment of the previous evening's meal.

The pellets contain information documenting the incredible diversity of Sonoran Desert wildlife — a story told in yet another language, by the winged masters of the desert night. AH

Rich Glinski of Wickenburg retired from the Arizona Game and Fish Department and currently supervises Maricopa County's Desert Outdoor Center at Lake Pleasant. He has edited and written several works on birds, including Birds of Prey in the American West*, with photographs by Tom Vezo.*

Tom Vezo of Green Valley admits he's not a night person, but says the change to the dark shift while capturing owls on film was challenging and enjoyable.

[OPPOSITE PAGE] Young barn owls are able to fly at about 60 days of age.
[LEFT] The endangered ferruginous pygmy-owl flies short distances from one tree or bush to another and prefers the hours of dusk and dawn, unlike most other owls.
[BELOW] Sidewalk drains, culverts and dens left by other animals make fine places for the burrowing owl to build a nest.
[BOTTOM] Flying low over the ground or down from its perch, the elf owl usually grabs prey with its beak, but can also use its talons to capture insects in flight.

Ancient Ruins in the Stark Outback

Perry Mesa sites tell stories of a tough existence

TEXT BY TOM KUHN
PHOTOGRAPHS BY CHARLES LAWSEN

Driving down a dirt road rough enough to rip the bottom from a sedan, photographer Charles Lawsen steered the pickup truck over ruts and volcanic boulders as I held on tightly against the jostling motion. We were headed for Pueblo Las Mujeres, a 1,500-year-old native ruin on Perry Mesa, 55 miles north of Phoenix, and getting there wasn't easy.

Lawsen and I exchanged a meaningful look and burst into laughter. With mean roads like this, we figured ma and pa and the kids wouldn't show up out here in the family car any time soon. For us to get this far involved rocking and rolling across a high desert savannah on a road cobbled by lava bombs hurled from Joes Hill, an extinct volcano.

Stunted junipers and wild grass bleached nearly platinum by sun and continuous drought lends a primitive beauty to this weary land. Most people would not want to live here, and we were left to wonder how ancient people managed with only sticks and stones.

When we finally stopped, like a sailor testing his sea legs, I felt grateful for firm footing again as I faced a defensive perimeter of dry-laid boulders. Beyond the redoubt, arranged along the crest of precipitous Squaw Creek canyon, we could see the rubble of 200 rooms occupied for perhaps 300 years, before the residents disappeared around A.D. 1400, leaving little record of themselves except petroglyphs chiseled into a basalt ridge.

During the following weeks, Lawsen and I visited five of the mesa's seven major archaeological sites — one of the largest concentrations of ancient sites in Arizona. Visitors can drive to four of them — Las Mujeres, Brooklyn and Rosalie Mine groups, all in the Tonto National Forest, and to Pueblo La Plata Ruin in the 71,000-acre Agua Fria National Monument.

But to see the remaining three — Pueblo Pato, the Baby Canyon and Lousy Canyon groups — expect to

[RIGHT] Ancient Indian ruins offer clues about communities that once thrived on the inhospitable high-desert plateaus of Perry Mesa and Black Mesa in the Tonto National Forest and the Agua Fria National Monument in central Arizona. This view takes in Perry Tank Canyon near Pueblo Pato ruin.

walk long distances across some grassy flats spiked with ankle-nipping prickly pear and catclaw acacia. Knowing just where to look for the sites is the real trick because they don't appear on any area maps. But that hasn't prevented grave robbers and pot hunters from finding them. Scars from illegal digs pock each of the sites.

Archaeologists hope thieves missed a few things, enough perhaps to reveal more about the people they call the Perry Mesa Traditional, who were neither the valley-dwelling Hohokam nor Hopis, but of a culture somewhere in between. They were farmers with an organized society. There's evidence that they maintained an outpost atop the locally named Horseshoe Mountain that could warn the pueblos of approaching danger.

The Perry Mesa people may not have been the best neighbors. They're suspected of being raiders who preyed on the ancient trade route between the Hohokam villages in what is now metropolitan Phoenix and the Hopi pueblos of northern Arizona. Why else would they require such elaborate defenses, scientists theorize, if not to defend against retaliation?

The ruins are now considered national treasures, but getting to them either by foot or by truck involves rough traveling. The mesa has almost no water, but travel becomes even more treacherous when rain transforms the roads into tire-swallowing gumbo.

It wasn't until President Bill Clinton created the Agua Fria National Monument, in January 2000, that the ruins at Perry Mesa received publicity. A slight increase in visitation occurred but soon petered out after people discovered how bad the roads were.

Vasil Evenoff of Phoenix, who hikes Arizona, expressed a common sentiment: "I'd been to the area before, but I didn't know there were so many Indian ruins out there."

[ABOVE] In a south-facing aerial view, the Aqua Fria River gorge cuts between Perry Mesa on the left and Black Mesa on the right.
[RIGHT] The stone walls of a building constructed about 1910 at the Brooklyn Mine on the east end of Perry Mesa add to the area's history.

Bloody Basin Road, Forest Service Road 269, from Interstate 17 north of Black Canyon City, provides the most direct route to the four accessible ruins. Not surprisingly, they have suffered from litter and severe vandalism, including fire rings constructed of rocks thoughtlessly removed from the tumbledown ruin. But we were able to find well-preserved petroglyphs of art and tribal symbols pecked into lava rimrocks.

Having explored some easy ruins, we now faced a dilemma. We didn't know where to find the ruins in the national monument, so we appealed to Connie L. Stone, a Bureau of Land Management archaeologist, for help in exchange for not revealing their exact locations.

In late March, on another trip to the area, we set off across the savannah on foot for the Pueblo Pato ruin with a dozen volunteer site stewards and with Stone and BLM archaeologist Bill Gibson as guides.

Pueblo Pato was named for a petroglyph resembling a duck at the site, where only a few walls stand. Time and vandalism have pulled down the others.

Not until I was within 70 yards could I separate the rubble mound from its camouflage of desert shrubs and grass. And only when I stood next to the ruin did outlines of rooms take form.

Pueblo Pato is no place to wander about recklessly at night. The Indians built Pueblo Pato as a 150-room fortress against the brink of a sheer cliff of Perry Tank Canyon — the largest site within the national monument. Careful not to misstep, I picked my way across a narrow path to a wide ledge over the canyon, where defenders could mass for defense, and ponder whether combat went unrecorded here centuries ago.

Artists of the day climbed over the cliff crest to chisel elaborate stick men and clan symbols into the canyon wall. At a point southeast of the ruin, we scrambled over the side for a look. The gallery proved magnificent. Depictions of huge stags and bighorn sheep, centipedes, tortoises and people grace the ledges. "The longer you stay," remarked Gibson, "the more petroglyphs you see."

When Jim F. Winsche of Peoria heard about the Pueblo Pato tour, he quickly signed up. "I thought it would be a good opportunity to see the place before they have blacktop walks around it," he said with a laugh.

That's not likely to happen soon, but the BLM does plan improvements. For starters, Bloody Basin Road may be graded, the public directed to an easy site, signs posted and more rangers put on patrol.

The BLM acquired the property in 1990 through a land exchange with the state of Arizona. "The hope is that the monument will have its own staff to manage visitors and protect the natural resources," Stone said."

Discovering the full extent of ancient occupation on Perry Mesa will be one of the first goals, she said. "Staff will survey the mesa to find out what's up here and how best to manage and protect the sites. There are probably more, smaller sites to be discovered."

In early May, with Stone once again our guide, Lawsen, Susan Bernhardt of Seattle and I hiked to the Baby Canyon ruin, flushing pronghorn antelope whose rumps flared in fright. After a mile of climbing into and out of a canyon, we spotted the ruin on a bluff overlooking Baby Canyon, where a large boulder backed up a deep pool on Bishop Creek, on its way to the Agua Fria River. From the pool, I followed the only logical path up and, sure enough, broken shards from ancient water jugs blazed the way to the top.

"This is another defensive position," Stone explained. Cliffs, steep approaches and a fortified redoubt constructed of very large boulders protected the ruin on all sides.

The petroglyph field nearly encircled the ruin. I spotted dandy petroglyphs of three bighorn sheep and a magnificent stag. We speculated about the purpose of the drawings.

"They could have been ceremonial or magical; some may be clan signs," Stone explained. "Some could be just pure art. Some could tell stories. Others believe they are astronomical measuring devices for keeping track of the seasons."

Which leads to another mystery.

Another stop, Pueblo La Plata, is easiest to reach — and the one most likely to be developed as a representative site for tourists. Perhaps because it's accessible, La Plata has been systematically pilfered. Potsherds in the dump beyond the ruin include bits of black-on-yellow Jeddito Hopi pottery acquired through trade or banditry.

What's missing are petroglyphs, and that puzzles scientists. "Most of the biggest ruins have petroglyphs associated with them," Stone said, "but if they're here we haven't found them."

La Plata tops a mound within a quick run from a defensive position built across a narrow point at the mouth of Silver Canyon. A colossal piece of engineering, rockworks along its flanks extend 15 feet high.

[LEFT] Among the rich archaeological resources on Perry Mesa are the petroglyphs at Brooklyn ruins.
[ABOVE] When under siege, dwellers of nearby Pueblo La Plata may have sought refuge behind fortified stone walls built around A.D. 1400, now worn down to foundation rock.

Archaeologist Scott Wood of Phoenix, who works for the Tonto National Forest, studied the ruins left by the Perry Mesa people for 25 years. "They used [the mesa] as a base for a whole complex lifestyle," he said.

In a 1999 article published in the scientific *Plateau Journal*, Wood collaborated with two other researchers on the theory that Perry Mesa communities kept in touch by using some sort of signals. The other researchers were David R. Wilcox, senior research archaeologist at the Museum of Northern Arizona in Flagstaff, and the late Gerald Robertson Jr. of Sedona, a decorated war veteran and former president of the Verde Valley chapter of the Arizona Archaeological Society.

"They seemed very much in some kind of agricultural mode," but probably raided other Indians, Wood said of the Perry Mesa people. "If you go raiding, you might expect to be chased back or meet with retaliation. On the mesa was a good place to protect yourself," especially with signals that would alert them when an enemy approached.

"Las Mujeres, at Squaw Creek, as far as we can tell, is the linchpin in the whole thing [the complex]," he said. "It sits in the most strategic position, and it's the only one that's got a big defensive wall around it. Just about everything points to that place being the center."

Eventually, more people will want to see the monument's ruins, and roads may be improved to accommodate them. BLM spokesperson Kathryn Pedrick said that when money permits, the agency will make things easier for visitors, but the monument is a long way from being ready for heavy visitation.

Meantime, Wood advised that, for now, driving on Perry Mesa "is not for the faint-hearted or low-clearanced." AH

Tom Kuhn of Phoenix enjoys working closely with archaeologists while researching articles about Arizona's backcountry, like the ruins on Perry Mesa.

Chuck Lawsen of Glendale tried to imagine how ancient people managed to survive in such a desolate environment almost a thousand years ago.

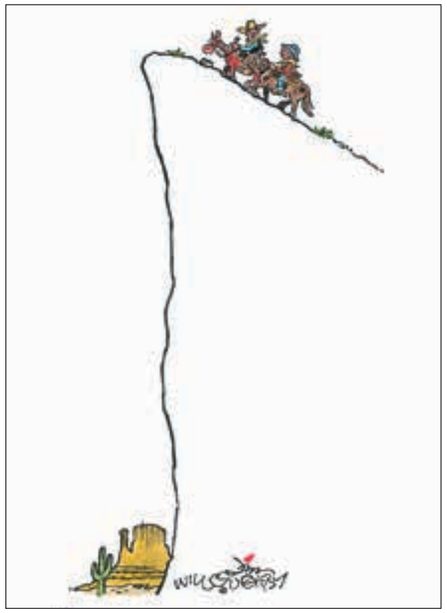
when you go

LOCATION: The ruins in the Tonto National Forest that can be reached by forest roads are approximately 65 miles north of Phoenix and east of Interstate 17.
GETTING THERE: On Interstate 17, at Exit 259, turn east onto Bloody Basin Road, Forest Service Road 269. After fording the Agua Fria River, turn south onto Forest Service Road 14 for approximately 2 miles, then turn west on Forest Service Road 610. After a few miles, watch for the ruin south of the road. There are no signs past FR 14, and the ruin is not marked.
TRAVEL ADVISORY: These rough roads require a high-clearance vehicle. Carry plenty of water and a spare tire.
ADDITIONAL INFORMATION: Tonto National Forest, Cave Creek Ranger District, (480) 595-3300; Bureau of Land Management, Phoenix Field Office, (623) 580-5500, azwww.az.blm.gov/pmesa.

humor

"Second Opinion:
That's the medical way of saying,
'Hey don't blame me.' "*

WILLOUGHBY'S WEST by JIM WILLOUGHBY



"Going down should be a lot easier."

Unusual Perspective

By Linda Perret

London Bridge was moved from England to Lake Havasu City. A developer bought the bridge, took it apart, shipped its 10,200 granite blocks to Arizona and then put it back together again. That makes London Bridge the world's largest Tinkertoy.

GHOST TOWNS

We asked for ghost town jokes. Here are some reader responses:

Why are they called ghost towns? Some say it's because they're deserted. Others say it's because their former residents died and their ghosts linger there. Still others say since we already have Tombstone and Skull Valley, we may as well have some other morbid places to spice things up.

MARY HELEN LABADIE, Phoenix

I visited a ghost town recently, and the people were so shallow you could see right through them.

JOHN KRIWIEL, Oak Lawn, IL

Every year ghost towns and I become more alike. We're always battling to keep ourselves in states of arrested decay.

GUY BELLERANTI, Oro Valley

At the ghost town T-shirt shop, all they had was mediums.

That ghost town used to have a slaughterhouse. Now it's haunted by ghosts saying, "Moooooo."

He's not too bright. He tried to panhandle in a ghost town.

ALL BY GREGG SIEGEL, Gaithersburg, MD

VOTING IRREGULARITIES

During a general election some years back, the signs set up at the Sedona South Precinct had their messages both in English and Spanish. This included a sign that said, "Vote Here/Vote Aqui."

As I was signing in to cast my ballot, an elderly man came in somewhat upset. He exclaimed, "I thought they didn't allow campaigning at a polling place. That 'Aqui' guy has campaign signs right at the front door."

R. JOHN CONWAY JR., Sedona

BITING DOG

Recently, I flew to Indiana for my grandmother's estate auction. My Uncle Max and Aunt Kate were at the auction with their dog, Shadow, a big black lab mix with a huge head, sad eyes and arthritic legs. He followed Max around slowly and plopped down to rest whenever Max stopped.

Noticing this large and imposing companion, a nervous woman, who was standing near the dog, asked my uncle, "Does that dog bite?"

Max replied, "Only hamburgers, and they have to be cooked just right."

ANGELA BAURLEY, Tucson

NOW YOU SEE IT . . .

As I drove out of a small town in Arizona, I noticed six gas stations. A sign in front of the first spelled out this warning: "Last chance to buy gas. The next five stations are mirages."

HERM ALBRIGHT, Indianapolis, IN

EGGS IN WAITING

My wife and I were preparing a breakfast of bacon and eggs for four of our grandchildren who had spent the night with us. I was taking orders, and my wife was preparing each child's eggs-to-order breakfast. Some had already received their eggs and were busily eating. Four-year-old Becky was sitting at the table patiently waiting for hers when I asked, "Becky, how do you like your eggs?"

She replied, "I don't know. I haven't gotten any yet."

RICHARD A. OPPMAN, Porter, IN

TO SUBMIT HUMOR

Send your jokes and humorous Arizona anecdotes to Humor, *Arizona Highways*, 2039 W. Lewis Ave., Phoenix, AZ 85009 or e-mail us at editor@arizonahighways.com. We'll pay $50 for each item used. Please include your name, address and telephone number with each submission.

EARLY DAY ARIZONA

A young man at a party was reciting a poem. He had ground out 47 stanzas, and the end wasn't in sight.
"What's going on?" whispered the late guest.
"Rhymer is letting out his latest poem," said the early guest.
"What's the subject? What's the motive?"
"I've forgotten the subject," said the old-timer. "But I suspect the motive is revenge."

JEROME MINING NEWS, MARCH 23, 1912

Reader's Corner

The elf owl nests in cavities of saguaros. Shoot, if the housing market gets any tighter, I may start nesting in saguaros, too.

Send us your **owl** jokes, and we'll pay $50 for each one we publish.

* From the Witworks® humor book *HMOs, Home Remedies & Other Medical Jokes* by Linda Perret. To order, call toll-free (800) 543-5432, or visit arizonahighways.com.

destination

by LEO W. BANKS / photographs by EDWARD McCAIN

FLANDRAU SCIENCE CENTER Makes It Fun to Learn About the EARTH, the MOON and the STARS

PEOPLE DON'T EQUATE SCIENCE WITH FUN. Well, forget that. The Flandrau Science Center on the University of Arizona in Tucson campus is a blast.

Where else can you inspect the moon's craters through a powerful telescope; browse a collection of rare gems and minerals, including some that could be extraterrestrial; twirl yourself silly on a momentum machine; or attend a planetarium show that explains, say, the cataclysmic explosion of stars?

"People seem to like hearing about things that explode," says Michael Magee, Flandrau's planetarium director.

Warning: Some learning might take place. Bring a notebook, wear thick glasses and if anyone mentions the Crab Nebula, grin like you understand.

Start on the main floor's Galaxy Room, where hands-on exhibits help explain why things happen the way they do. Concepts such as the formation of planetary craters get powerful visual re-creation through simple means — such as dropping a steel ball into a drum filled with sand. The impact makes a hole and the sand scatters, showing the effects of mass and velocity when a meteorite slams into a planet.

See that beach ball floating between floor and ceiling, in seeming defiance of gravity? On closer inspection, you'll discover a column of air holding the ball in place, an example of the scientific principle known as the Bernoulli Effect: Air moving around an object causes drag on its trailing side, suspending the object in midair.

One wag dubbed these exhibits "fun physics furniture." They appeal primarily to kids, who also enjoy digging through the Old West mine replica, hunting for copper minerals and fool's gold. Everybody gets to take one sample home.

Parents, especially, love taking wild rides on "Dorothy's Dilemma," a rotating platform named for Olympic skater Dorothy Hamill that demonstrates "conservation of angular momentum." Ever notice how ice-skaters spin in ever-faster circles when they tuck their arms against their bodies? Try it: Grip the platform's handlebars, lean all the way back and push yourself into a gentle spin. Now pull yourself tight to the center and notice how the platform begins spinning wildly. For kids the effect is greatly diminished. The lesson, if you're not too dizzy: More size means more body mass, and therefore more angular momentum.

From the Galaxy Room, descend the stairs to the basement, which houses the University of Arizona Mineral Museum. Here Flandrau displays some 3,000 gems and minerals from around the world, roughly 10 percent of a collection that experts say ranks among the top four in the country.

If the idea of strange rocks doesn't grab you, think of it as a gallery of Mother Nature's artwork, a representation of her ideas about magic and beauty. The colors often seem otherworldly, such as copper samples in blue-green, sunset orange and coal black. Another specimen consists of two gleaming "feathers" of silver growing out of a white quartz rock. And there's wulfenitelike caramel candy and thin filaments of pyrite — fool's gold — layering perfectly over a rock like Elvis' hairdo.

Miners took many of these samples from Arizona's mines in the late 1800s, often against company rules. "They'd hide them in lunch boxes and smuggle them out," says curatorial specialist Shirley Wetmore. "Some went into family collections and were donated to the university."

The museum also displays meteorites and even tektites — black and green molten glass that some believe came to Earth by way of volcanic eruptions on other planets. Wetmore tends to disagree, but she's accustomed to wrestling with issues of origin. At least once a week someone strolls into Flandrau with a rock and a question: Is this a meteorite?

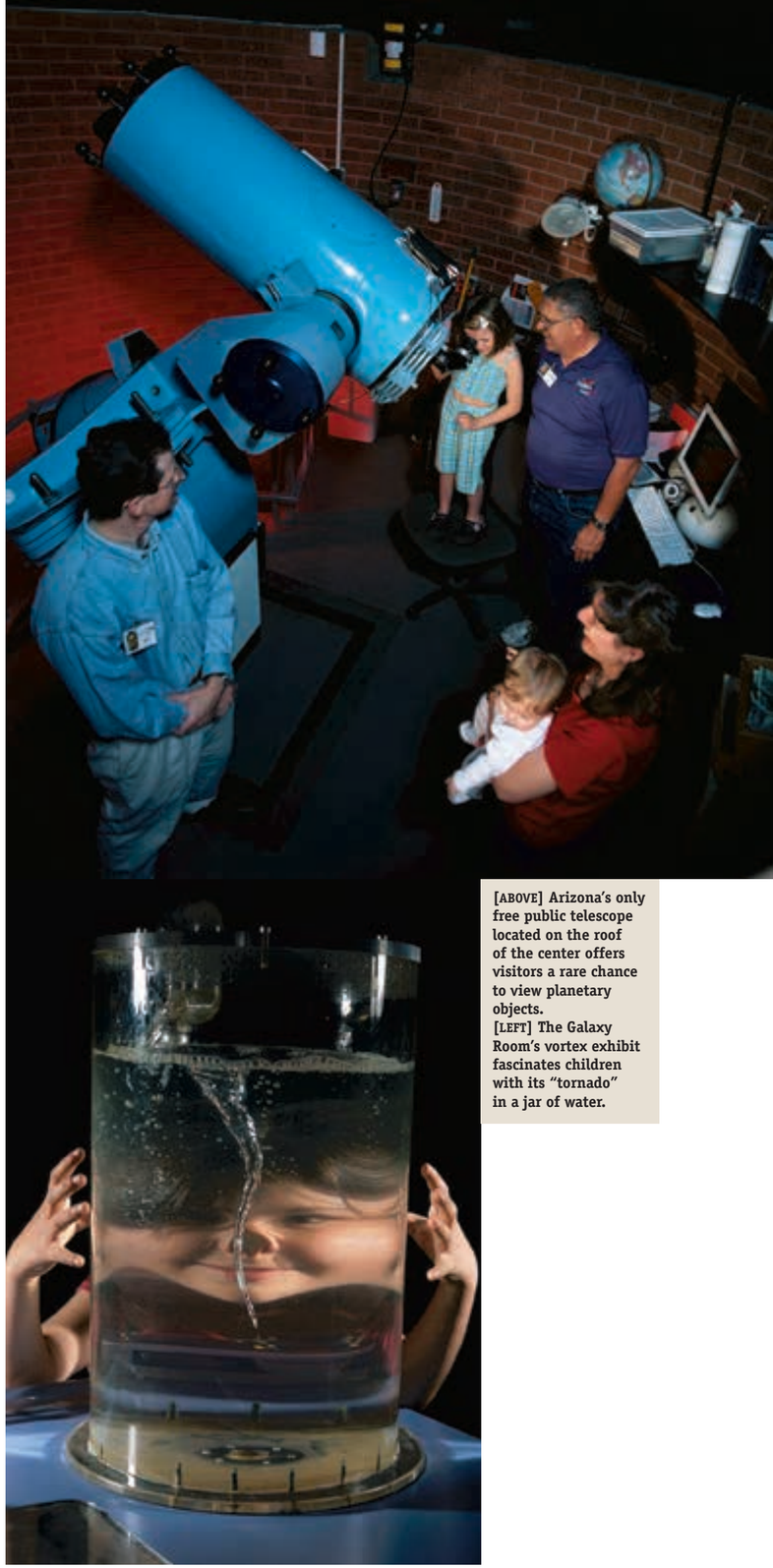
If it is, and if it came from Mars, it could be worth millions on the collector market. Even though Wetmore hasn't seen a real meteorite in a year, weekend rockhounders keep knocking on her door. One wheeled in a big rock on a dolly. Wetmore checked it out.

Drumroll. Her decision? Sir, what you have here is a boulder.

The Science Center takes you from beauty underground to beauty in the sky, by way of the only free public telescope in Arizona.

On clear nights this November and December — as long as there's no full moon, which creates visibility problems — viewers can peek at the moon's craters and inspect the bright central core of the Andromeda Galaxy, 2.6 million light-years away. Even with a full moon, viewers can see the reddish-orange dot

[BELOW] In this composited photograph created from two separate images, visitors to the Flandrau Science Center in Tucson enjoy a projected night-sky show in the 135-seat planetarium.



[ABOVE] Arizona's only free public telescope located on the roof of the center offers visitors a rare chance to view planetary objects.
[LEFT] The Galaxy Room's vortex exhibit fascinates children with its "tornado" in a jar of water.

[ABOVE] Young and old alike are encouraged to experience "Dorothy's Dilemma," which demonstrates "conservation of angular momentum," the motion of a spinning Olympic ice-skater. [LEFT] This beach ball illustrates the Bernoulli Effect by remaining suspended in a column of air.

of Mars and possibly its bedrock surface.

Observatory Manager Demos Galanos excites and challenges guests by explaining that the 16-inch-diameter mirror telescope actually takes them back in time. "Light from the moon takes 1.3 seconds to reach the Earth," says Galanos. "So when you look at the moon, you're seeing that object as it was, through a modest time distortion."

Visitors can find Flandrau at the east end of the University of Arizona Mall by watching for its trademark white domes. But before stepping inside and browsing the gift shop, check out the heliochronometer on the sidewalk outside.

Helio . . . what? Here's a clue: You might see people standing around it checking their watches. It's a sundial, probably the most accurate one the average layman will ever see.

Flandrau's larger dome — measuring 50 feet in diameter — houses the 135-seat planetarium theater, home to evening and weekend shows for kids and adults on a variety of topics. They range from a discussion of the catastrophic explosions of stars to basic introductions to the night sky, and holiday shows examining things like the Star of Bethlehem — which might not have been a star at all, some say. It could've been a bright comet, as no one today can be certain what early chroniclers meant by stars.

Using computer projections, the show discusses what comets were visible then, what stars became novas or supernovas — huge explosions that occur when a star can no longer sustain its energy, blowing itself apart — and it explains the impact astrologers had on how writers in Biblical times interpreted celestial events.

Other holiday shows broaden the approach, telling how Hanukkah, the ancient Roman Saturnalia and the traditions of the Vikings, among others, contributed to the mystique of the season.

But whatever the topic, fun happens. When kids attend daytime shows, the presenter introduces them to the massive projector sticking out of a circular pit in the center of the theater. He has them shout in unison, "Hello, Hector Vector Star Projector!" After that, the lights dim and the projector throws its beams onto the dome ceiling, creating a virtual copy of the night sky. At least one child, thinking he really was looking at the sky, later asks, "Hey, how'd you open that dome?"

When he's the presenter, Magee explains that the dome, in fact, remains closed throughout the show, and adds, "Now don't forget, it's daytime."

Mouths pop open. Faces blush. Especially among adults, who sometimes ask the same thing. In that case, in his most diplomatic tone, Magee says, "Remember, the stars are still there, but the sun makes the sky too bright to see them."

At that their eyes light up. Which is, if you think about it, what Flandrau does best. AH

LOCATION: 1601 E. University Blvd., Tucson. **HOURS:** Monday through Wednesday, 9 A.M. to 5 P.M.; Thursday through Saturday, 9 A.M. to 5 P.M. and 7 P.M. to 9 P.M.; Sunday, 1 P.M. to 5 P.M. Public telescope hours: Wednesday through Saturday, 7 P.M. to 10 P.M., weather permitting. **FEES:** Exhibit-only admission: $3, adults; $2, children. Planetarium show and exhibit: $5.50, adults; $4, children ages 3 to 13; $4.50, seniors and military; children under 3 not admitted to the planetarium. **ADDITIONAL INFORMATION:** (520) 621-STAR or www.flandrau.org.

THINGS TO DO NEAR FLANDRAU SCIENCE CENTER

Area codes are 520.

ARIZONA STATE MUSEUM The museum bills itself as "the oldest and largest anthropology museum in the Southwest." Founded in 1893, exhibits explore the cultures of prehistoric, historic and contemporary Indian tribes of Arizona; 621-6302.

UNIVERSITY OF ARIZONA CENTER FOR CREATIVE PHOTOGRAPHY The center is a nationally recognized archive, research center and museum dedicated to photography as an art form. It hosts shows and exhibits honoring great photographers like Ansel Adams, and exploring themes such as Latino life in the United States; 621-7968.

UNIVERSITY OF ARIZONA MUSEUM OF ART Housing a collection of more than 4,500 paintings, sculptures, prints and drawings, the museum presents art from around the world; 621-7567.

ARIZONA HISTORICAL SOCIETY Organized by the pioneers of Tucson, the society preserves and shares state history from ancient Indian villages to early statehood; 628-5774.

GENTLE BEN'S BREWING CO. A fixture for decades just west of the University of Arizona's main gate, this restaurant serves hamburgers, salads, pasta and a French dip sandwich made from roasted sirloin. Start with the spinach artichoke dip appetizer, the soup du jour and a tasty raspberry ale; 624-4177.

by TERRY GREENE STERLING

LOVEBIRDS Have Joined the Bird List in PHOENIX

ONE MORNING LAST FALL, AFTER THE monsoon storms had washed the Salt River Valley clean and the desert was warm and sweet, I sat in my garden procrastinating. I knew I should get out of the lawn chair, enter the house and write. But I couldn't budge. The air was perfumed with creosote. Mockingbirds sang in mesquite trees. A whiptail lizard sunned itself near a pot of purple petunias. Quail scavenged for leftovers beneath the bird feeder hanging from my grapefruit tree.

Suddenly, a squawking flash of green streaked across the sky. The whiptail perked up, the mockingbirds were silent and the quail stood still.

Slackjawed, I watched two small parrots dart around the sky and land on my bird feeder.

Wild parrots in Phoenix?

Impossible. But I wasn't hallucinating.

[ABOVE] Natives of Namibia and Angola, Africa, increasing numbers of peachfaced lovebirds are calling Phoenix "home."

The noisy little gourmands were about 5 inches long, with curved bills, pinkish-orange faces, dark green wings with black tips, breasts the color of a Mexican lime and patches of turquoise on their rumps that reminded me of Navajo Indian jewelry.

The next day, my visitors brought pals. Six parrots descended on the feeder. They did parrot things, like hanging upside down and waddling. And squawking and screeching and chattering.

I am no ornithologist, but I knew parrots weren't native to Arizona. I wondered how the birds could survive in the Phoenix heat. And if by chance such creatures could survive, would they displace any native species?

One phone call to the Arizona Game and Fish Department, which keeps track of "feral exotics" in the state, answered everything.

Here's what I learned: My visitors were peachfaced lovebirds, hardy small parrots that make good pets and have long been sold in Phoenix pet stores for living-room bird cages.

Lovebirds are appropriately named because as couples they caress each other with their bills. And they don't stop at the caressing stage, if you catch my drift. Judging from what happened in Phoenix, they breed enthusiastically.

No one knows when, exactly, domesticated lovebirds escaped and turned wild and began breeding in the Phoenix area. We do know that by the mid-1990s, the Game and Fish Department began recording increased sightings of feral lovebirds in Phoenix, Scottsdale, Tempe, Apache Junction and Carefree. The birds have been sighted in flocks of six and 12. We don't know precisely how many feral lovebirds have made this valley their home. But it's safe to say a lot.

The reason: Lovebirds can take the heat.

Lovebirds are native to dry, hot climes of southwestern Africa, so Phoenix summers are a snap. Figuring out where to nest might have been more challenging.

Lovebirds are smart creatures, and they discovered that the spaces beneath roof tiles make agreeable nesting areas. Some lovebirds set up housekeeping in the cavities of saguaro cacti, right alongside Gila woodpeckers. Fortunately, lovebirds and woodpeckers seem to have different ideas of what makes a good saguaro habitat. Lovebirds like small dwellings. Woodpeckers prefer larger, more expansive homes. All of this tells the Game and Fish Department scientists that lovebirds are not displacing saguaro-dwelling woodpeckers.

For a while, state scientists worried that lovebirds would venture out into the wild Sonoran Desert and raise ecological havoc with native species. But so far, the birds have preferred to remain city dwellers. Phoenix offers them everything they need — nesting areas, good climate, plenty of seeds and fruits to eat, as well as backyard feeders replenished daily by procrastinating writers.

Since the first day I noticed them in early fall, the lovebirds have sated themselves at my feeder every day. After waddling around the potted petunias for a bit of post-repast exercise, they fly off somewhere. I think they live nearby. I've grown accustomed to their chatter in the mesquite trees and to the sight of them darting across the blue sky like a green ribbon in the wind.

Like so many of us who came to this desert from somewhere else, they have become part of the landscape. AH

by LEO W. BANKS / photographs by RANDY PRENTICE

Meandering PATAGONIA-to-SONOITA Drive Offers Diverse History, Movie Sites, Wine Country

FOR SUCH A SMALL RANGE, THE PATAGONIA Mountains hold many surprises. They're rich in mining history and ghost towns, and the characters who put down roots there are as colorful as they come. With the Canelo Hills to the east, the mountain range also shelters the San Rafael Valley, a prairielike paradise of astonishing beauty. Known for its vistas, the valley has served as a filming location for a number of Hollywood movies, including the 1955 classic, *Oklahoma*.

And if that isn't surprise enough, prepare for the unlikely sight of a Louisiana-style mansion in the heart of southeast Arizona's ranch country.

Begin this 60-mile drive in the little town of Patagonia, 70 miles southeast of Tucson if you take Interstate 19, the most direct route. From the door of the Stage Stop Inn, drive south past the post office onto Harshaw Road, also Forest Service Road 58. It follows a lazy path into the mountains, intersecting with Forest Service Road 49 about 5 miles along.

Turn right onto FR 49, which leads to the old Harshaw townsite, named for David Tecumseh Harshaw. He opened the Hermosa Mine in 1877, and the settlement that grew around it eventually numbered 2,000 people.

The townsite's most interesting remnant is the old Mexican cemetery at the right side of the road, complete with stone crypts, statues of the Virgin Mary and simple rock mounds marked by weathered wooden crosses. Some plots include printed information sheets, laminated and set into picture frames, describing the lives of those buried there.

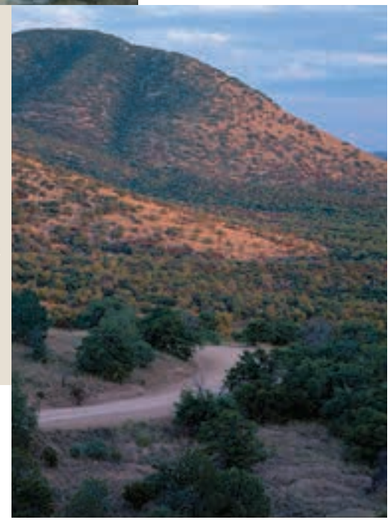
Angel Soto met a violent death on December 23, 1899, when he went to the nearby Morning Glory Mine to sell a cow. Angry that his animal was already being butchered, an argument flared and Soto was killed. The unnamed killers fled to Mexico, but it is not known whether they were ever arrested.

Three months later, when Soto was found, his body was covered in snow, which preserved the corpse and allowed the family to give him a Christian burial.

The Soto plot, like the others in the Harshaw Cemetery, has beautifully tended flowers, a sign of the reverence local descendants have for their pioneer history.

Continuing south, 49 heads toward the U.S.-Mexico border, passing oak trees still decorated with the reds and oranges of late fall, as well as the old townsites of Mowry, Washington Camp and Duquesne.

The name Sylvester Mowry still echoes in these mountains. An 1852 graduate of the U.S. Military Academy at West Point, he ran the Patagonia Mine, employing 300 men, at least 50 of whom were on constant guard



[ABOVE] A colorful tribute adorns a crypt in the Harshaw Cemetery south of Patagonia in southern Arizona. [RIGHT] Forest Service Road 799 winds through late-afternoon shadows near Lookout Knoll in the Canelo Hills east of Patagonia. [OPPOSITE PAGE] Between the Patagonia Mountains foothills and the Canelo Hills lie the San Rafael Valley and the tiny community of Lochiel.

[ABOVE] The former home of George Westinghouse stands vacant and decaying in the ghost town of Duquesne. [RIGHT] Moisture-loving cottonwood trees line the banks of the Santa Cruz River through the San Rafael Valley. [BELOW] The 30-room French-colonial house and 20,000 surrounding acres of San Rafael Ranch once headquartered the San Rafael Cattle Co. The house will eventually be open to the public.

private property, but visitors can see and photograph them from the road.

The area also draws quartz crystal-hunting rockhounds from around the world. The rarest and most sought-after are Japanese Twin Crystals, so named because they consist of two crystals joined at a 90-degree angle and because abundant and spectacular specimens have come from several places in Japan. Aficionados assign all sorts of magical powers to Japanese Twins, from stabilizing emotions to dispelling anger.

At Washington Camp, FR 49 links with Forest Service Road 61. The latter rolls south to the village of Lochiel, home to about 30 residents, a one-room schoolhouse no longer in use and a 25-foot-tall roadside cross.

The monument stands in honor of Fray Marcos de Niza, an explorer who entered the San Rafael Valley on April 12, 1539, making him the first European to travel west of the Rockies.

Just beyond the cross, turn left onto FR 58 and head into the heart of the valley, once a crossing point for Apache raiders and gold rushers headed west to California in 1849 and later.

Here, 22 miles from the starting point in Patagonia, the mountains and trees give way to grassland topped by the thoroughly incongruous sight of a Southern plantation mansion.

Built in 1900 by Scotsman Colin Cameron, the 10,000-square-foot, 30-room home also served for almost 100 years as headquarters of the San Rafael Cattle Co.

Today, the three-story building and 3,500 acres around it are owned by Arizona State Parks, which plans to open it as a park, with rental rooms, when renovations are finished. However, a completion date has not been announced.

"This is one of the most beautiful spots in Arizona," said Park Manager Lee Eseman, who lives there working on numerous projects. "When my husband and I drove into this valley for the first time, it brought tears to our eyes."

Hollywood producer Arthur Hornblow had a similar reaction when he was introduced to the San Rafael Valley by a color photograph in *Arizona Highways* magazine. At the time, he was looking for a place to shoot his next picture.

After doing further research, Hornblow decided the valley would be a perfect location, and in July 1953, the producer and a large crew arrived to shoot the exteriors for the film version of the smash Richard Rodgers and Oscar Hammerstein musical, *Oklahoma*.

The San Rafael mansion, a mile and a quarter duty to protect against roving bands of Apaches.

In 1862, after U.S. troops recaptured Arizona from the Confederates, Mowry was arrested as a Rebel sympathizer and his property confiscated. The resulting controversy made his silver mine famous throughout the United States.

Nothing of the old Mowry townsite exists today, and the remaining structures of Washington Camp, 4 miles down the road, have become homes.

But ghost-town browsers can take a short jog off the main road to Duquesne, and if the spirit moves, write a check to buy the place. It's for sale. Five structures, 40 acres, $132,000.

Among the structures stands a three-bedroom, two-fireplace home built in 1889 by George Westinghouse, of the famous electric company family. It and the other buildings are

[ABOVE] Sunset bathes the San Rafael Valley in soft pastel light.

from the U.S.-Mexico border, did not appear in the movie, but its exterior played a prominent role in the 1963 John Wayne western, *McClintock!*

Wayne's character, George Washington McClintock, liked to toss his hat onto a weathervane on the roof of the house, then a Mexican boy would climb the trellis and retrieve it for him.

Other movies filmed in the valley include *Tom Horn*, with Steve McQueen, and *Wild Rovers*, with William Holden and Ryan O'Neal.

The San Rafael mansion is not yet open to the public, but visitors with binoculars can get a good look at it from the bottom of the ranch driveway.

Views elsewhere across the valley are exquisite. One of the best spots is at a T in the road, 2 miles past the San Rafael ranch. A south-facing dirt pullout offers a panorama that takes in the Patagonia Mountains, the Canelo Hills, Huachuca Mountains and down into Mexico.

At the same spot, FR 58 turns north and shortly intersects Forest Service Road 799. Turn right to take that road through Canelo Pass, elevation 5,246 feet. It affords an awe-inspiring look back at the gentle suede-colored hills, the cottonwoods along the meandering Santa Cruz River, the grass waving in the breeze and red-tailed hawks soaring across a sky of magical blue.

The pavement starts again 4 miles beyond the pass at State Route 83. Follow it 16 miles into Sonoita. This last part of the drive passes Arizona's wine country and picturesque horse ranches lining the highway.

End a day of beautiful surprises in southeast Arizona with dinner at the Sonoita Steakout, where you might find yourself sitting beside a real-life cowboy, hat on the table as he works on a 32-ounce porterhouse. AH

WARNING: Back road travel can be hazardous if you are not prepared for the unexpected. Whether traveling in the desert or in the high country, be aware of weather and road conditions, and make sure you and your vehicle are in top shape. Carry plenty of water. Don't travel alone, and let someone at home know where you're going and when you plan to return. Odometer readings in the story may vary by vehicle.

ADDITIONAL INFORMATION: Coronado National Forest, Nogales Ranger District, (520) 281-2296; Patagonia Visitor Center, (520) 394-0060.


DICK GEORGE

Take a Weekend Photo Workshop

photo workshop

Friends of *Arizona Highways* offers a variety of weekend photography workshops designed for those who cannot take longer trips. The shorter workshops include "Photo Publishing Fundamentals" and "Making Money With Your Camera."

"Photography Made Simple" offers help with basic camera operation, and the "*Arizona Highways* School of Photography" addresses the art and aesthetics of photography in the magazine's style.

Many workshops occur monthly, while others are held only once a year. Workshops fill quickly, but alternate dates may be available. More information can be found on the **Friends** Web site.

For more information or a free workshop brochure, contact **Friends of *Arizona Highways*** at (602) 712-2004, toll-free at (888) 790-7042 or visit www.friendsofazhighways.com.

OTHER PHOTOGRAPHY WORKSHOPS

November 15
"Field Techniques," in Tucson
November 21-22
"The Phoenix Zoo"

Pipe Up

November 1; Tucson

The droning sound of bagpipes is associated with kilted Highlanders of Scotland, but research suggests that this odd-looking instrument can be traced back as far as A.D. 100 in Rome. By the sixth century, these unusual pipes were used by the Roman Infantry. Speculation surrounds the bagpipe's introduction to Scotland, but there is no disputing that this ancient instrument — consisting of a bag, a chanter and drones — was developed fully by the Highland clans as the national instrument.

Listen to the haunting harmonies of modern bagpipes at the **Tucson Celtic Festival and Scottish Highland Games** held at Rillito Park. Other activities include live Celtic entertainment, athletic demonstrations and military re-creations.

Information: (520) 743-9291.

Gourds Galore

November 8-9; Phoenix

Take a fruit that isn't known for its sweetness, but for its utility as a container, and you'll discover hard-shelled gourds. The gourd family, *Cucurbitaceae*, also includes melons, squash, pumpkins and cucumbers. Gourds of all kinds are believed to have been one of the first intentionally cultivated crops. Hard-shelled gourds are dried and transformed into bowls, dippers, drinking cups, cooking pots, floats for fishing nets, storage containers and musical instruments.

The Desert Botanical Garden in Phoenix celebrates this New World harvest at **Gourds Galore**. Festivities include demonstrations by gourd artists, hands-on activities, cooking demonstrations, crafts and a farmers' market.

Information: (480) 941-1225.

Home Sweet Home

November 29-30; Bisbee/Warren

During the copper boom in old Bisbee, the population surged, and in 1907 the Calumet and Arizona Mining Co. founded the company town of Warren. This master-planned community offered a place for elite citizens to build mansions of grandeur away from the mining activities. Many mineworkers lived in the district and commuted each day on the Warren-Bisbee Railway.


TUCSON MUSEUM OF ART AND HISTORIC BLOCK

Traditional Mexican *nacimientos* display a colorful approach to Christmas and the nativity.

Since those early days, Warren has been incorporated into Bisbee, even though the district is 2 miles east of historic downtown Bisbee. Walk though some of the finest private homes in Warren and enjoy some of the most stunning architecture in the Southwest at the **21st Annual Historic Home Tour**.

Information: (520) 432-5421 or toll-free, 866-2BISBEE.

Traditional Mexican Christmas

November 23, 2003-March 28, 2004; Tucson

Nativity scenes often represent the birth of Christ, but the traditional Mexican nativity expands the portrayal of Biblical scripture to include elements of Mexican culture. Called the *nacimiento*, the intricate arrangements of painted miniature figures combine the symbolism of the Spanish Colonial Catholic Church with snapshots of everyday life in rural Mexico. A scene depicting a stable and the Holy Family may be displayed beside another depicting a bullfight arena.

The Tucson Museum of Art hosts the seasonal **El Nacimiento** in historic Casa Cordova, showcasing 300 painted figurines created and displayed by Maria Luisa Tena.

Information: (520) 624-2333.

Other Events

Arboretum Folk Festival; November 8; Superior; (520) 689-2811. Live folk music and fall foliage at the Boyce Thompson Arboretum State Park.
Sahuaro Ranch Days; November 8-9; Glendale; (623) 930-4200. Antique tractor show and home tours.
Bluegrass Festival and Fiddle Championship; November 14-16; Wickenburg; (928) 684-5479. Live entertainment, music competitions and arts and crafts.
Red Rock Fantasy of Lights; November 21, 2003-January 4, 2004; Sedona; (928) 282-1777 or toll-free, (800) 521-3131. Themed holiday light displays and seasonal music.
Christmas Parade; November 22; Winslow; (928) 289-2434. Arizona's largest annual Christmas parade.
Old Pearce Holiday Festival; November 28-29; Pearce; (520) 826-3588. Storytellers, live music and antiques.
Florence Junior Parade; November 29-30; Florence; (520) 868-9433. The world's oldest continuous junior rodeo and parade.

Note: *Dates and activities could change. Before planning to attend events, phone for fees and to confirm dates and times.*

For an expanded list of major events in Arizona, visit our Web site at arizonahighways.com.

JAVELINAS' Aromatic Identification System Makes PERFECT SCENTS


WILL TERRY

THE JAVELINA IS NOT A PIG, ALTHOUGH THEY are distant cousins. It's a peccary. If you call a javelina a pig, I'm not sure if you're insulting it or raising it to a status it doesn't truly deserve. I remember a school chum of mine telling me that he stood up for me one day. He told me that another classmate of mine said I wasn't fit to eat with pigs.

I said, "How did you defend me?"

He said, "I told him you were."

Compliment? I'm not sure. Nevertheless, whether it's praise or put-down, the javelina is a peccary rather than a pig. What's the difference, you ask. Well, it's considerable.

Peccaries are smaller than pigs. The adult javelina weighs 40 or 50 pounds, while many species of pigs can reach 600 pounds. Javelinas, for the most part, eat only plant food. Pigs are more omnivorous. There are anatomical differences, also. All peccaries have a small scent gland on the rear portion of the back. Pigs don't.

This scent gland is intriguing because it largely controls the social life of javelinas, which travel around the desert in closely knit herds. They're very devoted to their own community, and they show no tendency toward internal competition. Different herds do not intermingle.

The distinctive odor given off by the scent gland is how the individual javelina recognizes its own herd.

I learned all this on a tour I took through the desert surrounding Tucson. As the tour guide spoke, one thought crossed my mind — I'm glad that humans don't follow the same protocol.

Can you imagine going to a wedding and being greeted at the entrance by the tuxedoed usher?

"Are you with the bride or the groom?"

"We're with the groom."

"Are you sure?" he says. "You smell like you'd be with the bride."

I say, "Maybe it's this new aftershave lotion, but we're definitely with the groom."

"I could have sworn you'd be with the bride."

"Sniff again, pal, and just put us on the groom's side, will you?"

Awkward, isn't it? But it would be worse at sporting events. Take football games, for example.

Football fanatics show their allegiance by displaying school colors. People paint one side of their face green and the other side yellow (or whatever the particular school colors are). True supporters will strip to the waist and paint their entire upper bodies with the team's colors.

Imagine if odors instead of pigments were utilized — attendance would plummet.

The scent gland system works well for javelinas, though, because they have that laid-back peccary personality. They're friendly, sociable, noncompetitive. We humans are more thin-skinned and confrontational. For example, imagine what would happen if you met and conversed with a stranger.

"You're not from around here, are you?" you'd say.

"No, I'm not," he'd say.

You'd say, "Let me see, I'll bet you're from (name any state or region you like here)."

He'd say, "Yes, I am. Could you tell from the accent?"

You'd say, "No, you just smell like you're from (name any state or region you like here)."

Bam. Right away, you're into a fight.

There could be a benefit for humans, though. It might get rid of those pesky nametags at parties. You know — you write your name in marker, peel off the back of the tag and stick it to your shirt. I hate those things. As far as I'm concerned, if a person throws a party, he or she should only invite people who already know one another. When javelinas have parties they don't invite javelinas from other herds. Consequently, you'll hardly ever see a peccary in the wild wearing a nametag.

I don't like nametags because I can never get them on straight. They're always crooked, and I'm compulsive about things being straight. If I'm at your house, and there's a picture tilting on your wall, I'll straighten it. So, I hate having a crooked nametag. You can't take them off and realign them. They never stick very well again.

However, I suppose it's preferred to the "scratch and sniff" form of identification.

Mother Nature had it right all along. Let peccaries be peccaries and let pigs be pigs. We can all remain our lovable human selves.

That idea smells pretty good to me. AH

In the book *Growing Older is So Much Fun EVERYBODY'S Doing It*, author Gene Perret says, "If it weren't for us older people, Boy Scouts would have to help each other cross the street." To order this book ($6.95 plus shipping and handling) or other Perret humor books call toll-free (800) 543-5432. In Phoenix call (602) 712-2000. Or use arizonahighways.com.

hike of the month

by TOM DOLLAR / photographs by JAY W. SMITH

KEVIN KIBSEY

Choose Between an EASY or DIFFICULT Trek Along an ALPINE STREAM

INGREDIENTS IN A GREAT fall hike recipe: yellow-gold-red aspens at their late autumn peak; a trail that presents an easy or hard option; four adults, slightly aged, of reasonably matched outdoor abilities and inclinations. Assemble the ingredients at dawn at the Mexican Hay Lake trailhead near Eagar, combine them with an incomparably clear, crisp Arizona-fall morning and you're on your way.

[ABOVE] Ponderosa pine trees bristle atop a plateau near Mexican Hay Lake in eastern Arizona. [OPPOSITE PAGE] Stating the obvious, a sign warns hikers of difficult terrain between the plateau and the South Fork of the Little Colorado River.

The Mexican Hay trailhead marks the downhill, or easy, option of the 7-mile South Fork Trail 97, which travels for much of its length along the South Fork of the Little Colorado River up in the alpine zone of Arizona's White Mountains. The more difficult reverse route starts at the primary trailhead in the South Fork Campground, some 7 miles and 1,500 feet down trail.

The trail begins on a plateau adjacent to Mexican Hay Lake, so named because pioneer settlers in the region annually drained the lake to harvest and bale the tall grasses growing there. There are lots of "hay" lakes in the White Mountains. But only this one bears the name "Mexican Hay." None of the locals we asked seemed to know why.

When the lake, a glacial basin, fills with water following spring runoff or periods of hard rain, it attracts an assortment of ducks, coots and Canada geese. Occasionally, even bald eagles are spotted there.

It's chilly when we set out, and frost crystals crunch underfoot with every step. Elk and deer droppings randomly litter the trail, and we catch a fleeting glimpse of a northern goshawk flying amid the trees.

For the first half of the hike, the trail goes nearly 4 miles across a parklike forest of 300-year-old ponderosa pine trees. One splintered giant lies shattered by a powerful blast of lightning. A few others show a "cat's face" scar, a remnant of ancient forest fires, near the base of their trunks.

The sky is clear and bright, and the openness of the plateau affords close-up and distant vistas of hillsides and peaks where myriad spears of flaming aspen trees thrust skyward amid the darker evergreens. By midmorning the sun has melted the frost and warmed our bodies, so we peel off layers of outerwear.

Leaving the plateau, the trail drops sharply toward the river. A sign warns of the short, steep patch with loose footing. Today, it's only a bit dicey, but in foul weather we might have questioned the safety of traversing this section. A couple of us scoot down on the seats of our pants.

Soon we skip on stepping-stones across the lovely South Fork of the Little Colorado to hike 3 miles at streamside toward trail's end at the South Fork Campground. The South Fork, one of the high country's truly great trout streams, is overgrown with thickets of red-osier dogwood—quite a tangle for anglers to plow through, we think.

But it's hiking we're after, not fishing, and as we approach the campground we all marvel at how quickly we've reached our destination. It's agreed: This has been one of the fastest, prettiest, easiest 7-mile hikes we'd all taken. AH

LOCATION: Approximately 220 miles northeast of Phoenix.

GETTING THERE: To reach the upper trailhead at Mexican Hay Lake, travel 3 miles west from Eagar on State Route 260; turn south on State Route 261. It's approximately 8 miles to Mexican Hay Lake. A dirt road, which should be avoided in wet weather, leads to the trailhead on the north side of the lake. To reach the lower trailhead at the South Fork Campground, travel 5.5 miles west on Route 260; turn south on Forest Service Road 560 and drive 2.8 miles to the campground and trailhead on the west side of the stream.

TRAVEL ADVISORY: This hike is best done in late spring, summer or autumn. Be prepared for any weather in Arizona's high country.

ADDITIONAL INFORMATION: Apache-Sitgreaves National Forests, Springerville Ranger District, (928) 333-4372.

Before you go on this hike, visit our Web site at arizonahighways.com for other things to do and places to see in the area.